



SEQUENCE LISTING

<110> Ruvkun, Gary
Ogg, Scott

<120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
IMPAIRED GLUCOSE TOLERANCE CONDITIONS

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<140> 09/205,658

<141> 1998-12-03

<150> 08/857,076

<151> 1997-05-15

<150> 08/888,534

<151> 1997-07-07

<150> US98/10080

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 Thr Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu
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 Thr Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val
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<210> 13
 <211> 139
 <212> PRT
 <213> Caenorhabditis elegans

<400> 13
 Thr Ser Gly Ser Gly Met Gly Pro Thr Thr Leu His Lys Leu Thr Ile
 1 5 10 15
 Gly Gly Gln Ile Arg Leu Thr Gly Arg Val Gly Ser Gly Arg Phe Gly
 20 25 30
 Asn Val Ser Arg Gly Asp Tyr Arg Gly Glu Ala Val Ala Val Lys Val
 35 40 45
 Phe Asn Ala Leu Asp Glu Pro Ala Phe His Lys Glu Thr Glu Ile Phe
 50 55 60
 Glu Thr Arg Met Leu Arg His Pro Asn Val Leu Arg Tyr Ile Gly Ser
 65 70 75 80
 Asp Arg Val Asp Thr Gly Phe Val Thr Glu Leu Trp Leu Val Thr Glu
 85 90 95
 Tyr His Pro Ser Gly Ser Leu His Asp Phe Leu Leu Glu Asn Thr Val
 100 105 110
 Asn Ile Glu Thr Tyr Tyr Asn Leu Met Arg Ser Thr Ala Ser Gly Leu
 115 120 125
 Ala Phe Leu His Asn Gln Ile Gly Gly Ser Lys
 130 135

<210> 14
 <211> 62
 <212> PRT
 <213> Caenorhabditis elegans

<400> 14
 Glu Asp Ala Ala Ser Asp Ile Ile Ala Asn Glu Asn Tyr Lys Cys Gly
 1 5 10 15
 Thr Val Arg Tyr Leu Ala Pro Glu Ile Leu Asn Ser Thr Met Gln Phe
 20 25 30
 Thr Val Phe Glu Ser Tyr Gln Cys Ala Asp Val Tyr Ser Phe Ser Leu
 35 40 45
 Val Met Trp Glu Thr Leu Cys Arg Cys Glu Asp Gly Asp Val

50

55

60

<210> 15

<211> 31

<212> PRT

<213> *Caenorhabditis elegans*

<400> 15

Lys	Pro	Ala	Met	Ala	His	Arg	Asp	Ile	Lys	Ser	Lys	Asn	Ile	Met	Val
1				5					10					15	
Lys	Asn	Asp	Leu	Thr	Cys	Ala	Ile	Gly	Asp	Leu	Gly	Leu	Ser	Leu	
			20					25					30		

<210> 16

<211> 72

<212> PRT

<213> *Caenorhabditis elegans*

<400> 16

Ile	Pro	Tyr	Ile	Glu	Trp	Thr	Asp	Arg	Asp	Pro	Gln	Asp	Ala	Gln	Met
1				5					10					15	
Phe	Asp	Val	Val	Cys	Thr	Arg	Arg	Leu	Arg	Pro	Thr	Glu	Asn	Pro	Leu
			20					25					30		
Trp	Lys	Asp	His	Pro	Glu	Met	Lys	His	Ile	Met	Glu	Ile	Ile	Lys	Thr
		35					40					45			
Cys	Trp	Asn	Gly	Asn	Pro	Ser	Ala	Arg	Phe	Thr	Ser	Tyr	Ile	Cys	Arg
	50					55					60				
Lys	Arg	Met	Asp	Glu	Arg	Gln	Gln								
65						70									

<210> 17

<211> 150

<212> PRT

<213> *Caenorhabditis elegans*

<400> 17

Tyr	Phe	Glu	Ser	Val	Asp	Arg	Phe	Leu	Tyr	Ser	Cys	Val	Gly	Tyr	Ser
1				5					10					15	
Val	Ala	Thr	Tyr	Ile	Met	Gly	Ile	Lys	Asp	Arg	His	Ser	Asp	Asn	Leu
			20					25					30		
Met	Leu	Thr	Glu	Asp	Gly	Lys	Tyr	Val	His	Ile	Asp	Phe	Gly	His	Ile
		35					40					45			
Leu	Gly	His	Gly	Lys	Thr	Lys	Leu	Gly	Ile	Gln	Arg	Asp	Arg	Gln	Pro
	50					55				60					
Phe	Ile	Leu	Thr	Glu	His	Phe	Met	Thr	Val	Ile	Arg	Ser	Gly	Lys	Ser
65					70				75					80	
Val	Asp	Gly	Asn	Ser	His	Glu	Leu	Gln	Lys	Phe	Lys	Thr	Leu	Cys	Val
			85						90					95	
Glu	Ala	Tyr	Glu	Val	Met	Trp	Asn	Asn	Arg	Asp	Leu	Phe	Val	Ser	Leu
			100					105					110		
Phe	Thr	Leu	Met	Leu	Gly	Met	Glu	Leu	Pro	Glu	Leu	Ser	Thr	Lys	Ala

115	120	125
Asp Leu Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys		
130	135	140
Glu Glu Ala Arg Lys Phe		
145	150	

<210> 18
 <211> 113
 <212> PRT
 <213> Caenorhabditis elegans

<400> 18

Ser Pro Leu Asp Pro Val Tyr Lys Leu Gly Glu Met Ile Ile Asp Lys		
1	5	10 15
Ala Ile Val Leu Gly Ser Ala Lys Arg Pro Leu Met Leu His Trp Lys		
20	25	30
Asn Lys Asn Pro Lys Ser Asp Leu His Leu Pro Phe Cys Ala Met Ile		
35	40	45
Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Val Leu Gln Val		
50	55	60
Leu Glu Val Met Asp Asn Ile Trp Lys Ala Ala Asn Ile Asp Cys Cys		
65	70	75 80
Leu Asn Pro Tyr Ala Val Leu Pro Met Gly Glu Met Ile Gly Ile Ile		
85	90	95
Glu Val Val Pro Asn Cys Lys Thr Ile Phe Glu Ile Gln Val Gly Thr		
100	105	110

Gly

<210> 19
 <211> 106
 <212> PRT
 <213> Caenorhabditis elegans

<400> 19

Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr Val		
1	5	10 15
Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Ala Leu Thr Leu		
20	25	30
Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val Glu		
35	40	45
Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile Leu		
50	55	60
Pro Leu Ile Gln Ala Leu Lys Tyr Glu Pro Arg Ala Gln Ser Glu Val		
65	70	75 80
Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly His		
85	90	95
Arg Leu Phe Trp Leu Leu Arg Ala Glu Ile		
100	105	

<210> 20

<211> 139
 <212> PRT
 <213> Caenorhabditis elegans

<400> 20

Glu	Tyr	Trp	Ile	Val	Thr	Glu	Phe	His	Glu	Arg	Leu	Ser	Leu	Tyr	Glu
1				5					10					15	
Leu	Leu	Lys	Asn	Asn	Val	Ile	Ser	Ile	Thr	Ser	Ala	Asn	Arg	Ile	Ile
			20					25					30		
Met	Ser	Met	Ile	Asp	Gly	Leu	Gln	Phe	Leu	His	Asp	Asp	Arg	Pro	Tyr
		35					40					45			
Phe	Phe	Gly	His	Pro	Lys	Lys	Pro	Ile	Ile	His	Arg	Asp	Ile	Lys	Ser
	50					55					60				
Lys	Asn	Ile	Leu	Val	Lys	Ser	Asp	Met	Thr	Thr	Cys	Ile	Ala	Asp	Phe
65					70					75				80	
Gly	Leu	Ala	Arg	Ile	Tyr	Ser	Tyr	Asp	Ile	Glu	Gln	Ser	Asp	Leu	Leu
				85					90					95	
Gly	Gln	Val	Gly	Thr	Lys	Arg	Tyr	Met	Ser	Pro	Glu	Met	Leu	Glu	Gly
			100					105					110		
Ala	Thr	Glu	Phe	Thr	Pro	Thr	Ala	Phe	Lys	Ala	Met	Asp	Val	Tyr	Ser
		115					120					125			
Met	Gly	Leu	Val	Met	Trp	Glu	Val	Ile	Ser	Arg					
	130					135									

<210> 21
 <211> 61
 <212> PRT
 <213> Caenorhabditis elegans

<400> 21

Ile	Gly	Phe	Asp	Pro	Thr	Ile	Gly	Arg	Met	Arg	Asn	Tyr	Val	Val	Ser
1				5					10					15	
Lys	Lys	Glu	Arg	Pro	Gln	Trp	Arg	Asp	Glu	Ile	Ile	Lys	His	Glu	Tyr
			20					25					30		
Met	Ser	Leu	Leu	Lys	Lys	Val	Thr	Glu	Glu	Met	Trp	Asp	Pro	Glu	Ala
		35					40					45			
Cys	Ala	Arg	Ile	Thr	Ala	Gly	Cys	Ala	Phe	Ala	Arg	Val			
	50					55					60				

<210> 22
 <211> 20
 <212> PRT
 <213> Caenorhabditis elegans

<400> 22

Pro	Ile	Thr	Asp	Phe	Gln	Leu	Ile	Ser	Lys	Gly	Arg	Phe	Gly	Lys	Val
1				5					10					15	
Phe	Lys	Ala	Gln												
			20												

<210> 23

<211> 163
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 23

Thr	Asp	Ser	Glu	Thr	Arg	Ser	Arg	Phe	Ser	Leu	Gly	Trp	Tyr	Asn	Asn
1				5					10					15	
Pro	Asn	Arg	Ser	Pro	Gln	Thr	Ala	Glu	Val	Arg	Gly	Leu	Ile	Gly	Lys
			20					25					30		
Gly	Val	Arg	Phe	Tyr	Leu	Leu	Ala	Gly	Glu	Val	Tyr	Val	Glu	Asn	Leu
			35				40					45			
Cys	Asn	Ile	Pro	Val	Phe	Val	Gln	Ser	Ile	Gly	Ala	Asn	Met	Lys	Asn
	50					55					60				
Gly	Phe	Gln	Leu	Asn	Thr	Val	Ser	Lys	Leu	Pro	Pro	Thr	Gly	Thr	Met
65					70					75					80
Lys	Val	Phe	Asp	Met	Arg	Leu	Phe	Ser	Lys	Gln	Leu	Arg	Thr	Ala	Ala
				85					90					95	
Glu	Lys	Thr	Tyr	Gln	Asp	Val	Tyr	Cys	Leu	Ser	Arg	Met	Cys	Thr	Val
			100					105					110		
Arg	Val	Ser	Phe	Cys	Lys	Gly	Trp	Gly	Glu	His	Tyr	Arg	Arg	Ser	Thr
			115				120					125			
Val	Leu	Arg	Ser	Pro	Val	Trp	Phe	Gln	Ala	His	Leu	Asn	Asn	Pro	Met
	130					135					140				
His	Trp	Val	Asp	Ser	Val	Leu	Thr	Cys	Met	Gly	Ala	Pro	Pro	Arg	Ile
145					150					155					160
Cys	Ser	Ser													

<210> 24
 <211> 44
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 24

Arg	Ala	Phe	Arg	Phe	Pro	Val	Ile	Arg	Tyr	Glu	Ser	Gln	Val	Lys	Ser
1				5					10					15	
Ile	Leu	Thr	Cys	Arg	His	Ala	Phe	Asn	Ser	His	Ser	Arg	Asn	Val	Cys
			20					25					30		
Leu	Asn	Pro	Tyr	His	Tyr	Arg	Trp	Val	Glu	Leu	Pro				
		35					40								

<210> 25
 <211> 38
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 25

Val	Glu	Tyr	Glu	Glu	Ser	Pro	Ser	Trp	Leu	Lys	Leu	Ile	Tyr	Tyr	Glu
1				5					10					15	
Glu	Gly	Thr	Met	Ile	Gly	Glu	Lys	Ala	Asp	Val	Glu	Gly	His	His	Cys
			20					25					30		

Leu Ile Asp Gly Phe Thr
35

<210> 26
<211> 60
<212> PRT
<213> Caenorhabditis elegans

<400> 26
Asn Leu Ala Glu Thr Gly His Ser Lys Ile Met Arg Ala Ala His Lys
1 5 10 15
Val Ser Asn Pro Glu Ile Gly Tyr Cys Cys His Pro Thr Glu Tyr Asp
20 25 30
Tyr Ile Lys Leu Ile Tyr Val Asn Arg Asp Gly Arg Val Ser Ile Ala
35 40 45
Asn Val Asn Gly Met Ile Ala Lys Lys Cys Gly Cys
50 55 60

<210> 27
<211> 20
<212> PRT
<213> Caenorhabditis elegans

<400> 27
Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly
1 5 10 15
Asp Cys His Tyr
20

<210> 28
<211> 43
<212> PRT
<213> Caenorhabditis elegans

<400> 28
Val Cys Asn Ala Glu Ala Gln Ser Lys Gly Cys Cys Leu Tyr Asp Leu
1 5 10 15
Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp Trp Ile Val Ala Pro Pro
20 25 30
Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp Cys
35 40

<210> 29
<211> 70
<212> PRT
<213> Caenorhabditis elegans

<400> 29
Asp Cys His Tyr Asn Ala His His Phe Asn Leu Ala Glu Thr Gly His
1 5 10 15
Ser Lys Ile Met Arg Ala Ala His Lys Val Ser Asn Pro Glu Ile Gly

20 25 30
 Tyr Cys Cys His Pro Thr Glu Tyr Asp Tyr Ile Lys Leu Ile Tyr Val
 35 40 45
 Asn Arg Asp Gly Arg Val Ser Ile Ala Asn Val Asn Gly Met Ile Ala
 50 55 60
 Lys Lys Cys Gly Cys Ser
 65 70

<210> 30
 <211> 35
 <212> PRT
 <213> Caenorhabditis elegans

<400> 30
 Cys Cys Leu Tyr Asp Leu Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp
 1 5 10 15
 Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp
 20 25 30
 Cys His Tyr
 35

<210> 31
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Degenerate probe

<221> misc_feature
 <222> (1)...(23)
 <223> n = A,T,C or G

<400> 31
 ggntgggayt rnrtnrtnge ncc

23

<210> 32
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Degenerate probe

<221> misc_feature
 <222> (1)...(18)
 <223> n = A,T,C or G

<400> 32
 tgytgynnnc cnacngar

18

<210> 33
 <211> 127
 <212> PRT
 <213> Caenorhabditis elegans

<400> 33
 Lys Phe His Glu Trp Ala Ala Gln Ile Cys Asp Gly Met Ala Tyr Leu
 1 5 10 15
 Glu Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys Met
 20 25 30
 Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala Arg
 35 40 45
 Asp Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met Met
 50 55 60
 Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe Asp
 65 70 75 80
 Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met Val
 85 90 95
 Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val Leu
 100 105 110
 Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys
 115 120 125

<210> 34
 <211> 131
 <212> PRT
 <213> Caenorhabditis elegans

<400> 34
 Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro Thr
 1 5 10 15
 Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys His Asp
 20 25 30
 Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala Cys His
 35 40 45
 Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys Asp
 50 55 60
 Ala His Leu Tyr Leu Leu Leu Gln Arg Arg Cys Val Thr Arg Glu Gln
 65 70 75 80
 Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro Ile Lys
 85 90 95
 Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr Gln Ile
 100 105 110
 Asn Pro Asp Asp His Arg Glu Cys Arg Lys Cys Val Gly Lys Cys Glu
 115 120 125
 Ile Val Cys
 130

<210> 35
 <211> 103
 <212> PRT

<213> *Caenorhabditis elegans*

<400> 35

Phe Asp Gln Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys
1 5 10 15
Lys Asn Asp Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr
20 25 30
Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu
35 40 45
Gln Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu
50 55 60
Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His
65 70 75 80
Cys Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro
85 90 95
Tyr His Tyr Glu Ile Val Ile
100

<210> 36

<211> 79

<212> PRT

<213> *Caenorhabditis elegans*

<400> 36

Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val
1 5 10 15
Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr
20 25 30
Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val
35 40 45
Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys
50 55 60
Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe
65 70 75

<210> 37

<211> 106

<212> PRT

<213> *Caenorhabditis elegans*

<400> 37

Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp Gly Asn Met Ser Tyr Ala
1 5 10 15
Glu Leu Ile Thr Thr Ala Ile Met Ala Ser Pro Glu Lys Arg Leu Thr
20 25 30
Leu Ala Gln Val Tyr Glu Trp Met Val Gln Asn Val Pro Tyr Phe Arg
35 40 45
Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly Trp Lys Asn Ser Ile Arg
50 55 60
His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly
65 70 75 80

Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly
85 90 95
Met Asn Pro Arg Arg Thr Arg Glu Arg Ser
100 105

<210> 38
<211> 60
<212> PRT
<213> Caenorhabditis elegans

<400> 38
Glu Ile Lys Leu Ser Asp Phe Lys His Gln Leu Phe Glu Leu Ile Ala
1 5 10 15
Pro Met Lys Trp Gly Thr Tyr Ser Val Lys Pro Gln Asp Tyr Val Phe
20 25 30
Arg Gln Leu Asn Asn Phe Gly Glu Ile Glu Val Ile Phe Asn Asp Asp
35 40 45
Gln Pro Leu Ser Lys Leu Glu Leu His Gly Thr Phe
50 55 60

<210> 39
<211> 2784
<212> DNA
<213> Caenorhabditis elegans

<400> 39
atgaagctaa tagcaacttc tcttctagtt cccgacgagc acacaccgat gatgtcacca 60
gtgaatacaa ctacaaagat tctacaacgg agtgggtatta aaatggaaat cccgccatat 120
ttggatccag acagtcagga tgatgacccg gaagatgggtg tcaactaccc ggatccagat 180
ttatttgaca caaaaaacac aaatatgacc gagtacgatt tggatgtgtt gaagcttgga 240
aaaccagcag tagatgaagc acggaaaaag atcgaagtcc cgcacgctag tgcgccgcca 300
aacaaaattg tagaatatct gatgtattat agaacgttaa aagaaagtga actcatacaa 360
ctgaatgcgt atcggacaaa acgaaatcga ttatcgttga acttgggtcaa aaacaatatt 420
gatcgagagt tgcacaaaa agcttgcgag tccctgggtga aaaaattgaa ggataagaag 480
aatgatctcc agaacctgat tgatgtgggt ctttcaaaag gtacaaaata taccggttgc 540
attacaattc caaggacact tgatggccgg ttacaggtcc acggaagaaa aggtttccct 600
cacgtagtct atggcaaact gtggagggtt aatgaaatga caaaaaacga aacgcgtcat 660
gtggaccact gcaagcacgc atttgaaatg aaaagtgaca tggatatcgt gaatccctat 720
cactacgaaa ttgtcattgg aactatgatt gttgggcaga gggatcatga caatcgagat 780
atgccgccgc cacatcaacg ctaccacact ccaggtcggc aggatccagt tgacgatatg 840
agtagattta taccaccagc ttccattcgt ccgcctccga tgaacatgca cacaaggcct 900
cagcctatgc ctcaacaatt gccttcagtt ggcgcaacgt ttgcccatcc tctcccat 960
caggcgccac ataaccagg gggttcacat ccgtactcca ttgctccaca gaccattac 1020
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catcagggat atggaatgaa tgggcggagt tgctcttcag aaaacaacaa tccattccac 1140
caaaatcacc attataatga tattagccat ccaaatcact attcctacga ctgtgggtccg 1200
aacttgtagc gggttccaac tccttatccg gattttcacc atcctttcaa tcagcaacca 1260
caccagccgc cacaactatc acaaaacat acgtcccaac aaggcagtca tcaaccaggg 1320
caccaaggtc aggtaccgaa tgatccacca atttcaagac cagtgttaca accatcaaca 1380
gtcaccttgg acgtgttccg tccgtactgt agacagacat ttggaaatcg attttttgaa 1440
ggagaaaagtg aacaatccgg cgcaataatt cgggtctagta acaaattcat tgaagaattt 1500

gattcgccga	tttgtggtgt	gacagttggt	cgaccgcgga	tgacagacgg	tgaggttttg	1560
gagaacatca	tgccggaaga	tgccaccatat	catgacattt	gcaagttcat	tttgaggctc	1620
acatcagaaa	gtgtaacttt	ctcaggagag	gggccagaag	ttagtgattt	gaacgaaaaa	1680
tggggaacaa	ttgtgtacta	tgagaaaaat	ttgcaaattg	gcgagaaaaa	atgttcgaga	1740
ggaaattttc	acgtggatgg	cggattcatt	tgctctgaga	atcgttacag	tctcggactt	1800
gagccaaatc	caattagaga	accagtggcg	tttaaagtgc	gtaaagcaat	agtggatgga	1860
attcgctttt	cctacaaaaa	agacgggagt	gtttggcttc	aaaaccgcat	gaagtacccg	1920
gtatttgtca	cttctgggta	tctcgacgag	caatcaggag	gcctaaagaa	ggataaagtg	1980
cacaaagttt	acggatgtgc	gtctatcaaa	acgtttggct	tcaacgtttc	caaacaaatc	2040
atcagagacg	cgcttctttc	caagcaaatg	gcaacaatgt	acttgcaagg	aaaattgact	2100
ccgatgaatt	atatctacga	gaagaagact	caggaagagc	tgcaagggga	agcaacacgc	2160
accactgatt	cattggccaa	gtactgttgt	gtccgtgtct	cgttctgcaa	aggatttgga	2220
gaagcatacc	cagaacgccc	gtcaattcat	gattgtccag	tttggattga	gttgaaaatc	2280
aacattgcct	acgatttcat	ggattcaatc	tgccagtaca	taaccaactg	cttcgagccg	2340
ctaggaatgg	aagattttgc	aaaattggga	atcaacgtca	gtgatgacta	aatgataact	2400
tttttctctc	accctactag	atactgattt	agtcttattc	caaatcatcc	aacgatatca	2460
aactttttcc	tttgaacttt	gcatactatg	ttatcacaag	ttccaagcag	tttcaataca	2520
aacataggat	atgttaacaa	cttttgataa	gaatcaagtt	accaactgtt	cattgtgagc	2580
tttgagctgt	atagaaggac	aatgtatccc	atacctcaat	ctttaatagt	catcagtcac	2640
tggtcccgcg	ccaatttttt	cgattcgcct	atgtcatata	ttgcaccgtg	gcccttttta	2700
ttgtaacttt	taatatattt	tcttcccaac	ttgtgaatat	gattgatgaa	ccaccatttt	2760
gagtaataaa	tgtatttttt	gtgg				2784

<210> 40

<211> 796

<212> PRT

<213> *Caenorhabditis elegans*

<400> 40

Met	Lys	Leu	Ile	Ala	Thr	Ser	Leu	Leu	Val	Pro	Asp	Glu	His	Thr	Pro
1				5					10					15	
Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly
			20					25					30		
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
		35					40					45			
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
	50					55					60				
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
65					70				75					80	
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
			85						90					95	
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
			100					105						110	
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
		115					120					125			
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
	130					135					140				
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
145				150					155					160	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
				165					170					175	

130	135	140
Ala Val Asp Glu Ala Arg Lys Lys Ile Glu Val Pro Asp Ala Ser Ala		
145	150	155
Pro Pro Asn Lys Ile Val Glu Tyr Leu Met Tyr Tyr Arg Thr Leu Lys		160
	165	170
Glu Ser Glu Leu Ile Gln Leu Asn Ala Tyr Arg Thr Lys Arg Asn Arg		175
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Leu Ser Leu Asn Leu Val Lys Asn Asn Ile Asp Arg Glu Phe Asp Gln		190
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Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys Lys Asn Asp		205
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Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr Lys Tyr Thr		220
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Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu Gln Val His		240
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Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp Arg Phe		255
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Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys Lys His		270
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Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr His Tyr		285
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Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His Asp Asn		300
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Arg Asp Met Pro Pro Pro His Gln Arg Tyr His Thr Pro Gly Arg Gln		320
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Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser Ile Arg		335
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Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro Gln Gln		350
	355	360
Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His Gln Ala		365
	370	375
Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro Gln Thr		380
385	390	395
His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln Met Pro		400
	405	410
Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly Pro Ser		415
	420	425
Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His Tyr Asn		430
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Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro Asn Leu		445
	450	455
Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe Asn Gln		460
465	470	475
Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser Gln Gln		480
	485	490
Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp Pro Pro		495
	500	505
Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp Val Phe		510
	515	520
Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu Gly Glu		525
	530	535
		540

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 Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro Arg Met
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 Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys Trp Gly
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 Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg Thr Thr
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Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys	
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Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln	
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Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val	Val	Tyr	Gly	Lys	Leu	Trp	
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Pro Ser Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His		
465	470	475
Tyr Asn Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro		480
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Asn Leu Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe		495
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Gln Gln Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp		525
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Pro Pro Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp		540
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Val Phe Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu		560
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Gly Glu Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe		575
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Arg Met Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala		605
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Pro Tyr His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser		625
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Val Thr Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys		640
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Lys Cys Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser		670
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Glu Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro		685
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Val Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser		700
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Tyr Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro		720
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Val Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys		735
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Lys Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe		750
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Gln Met Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr		780
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Lys Gly Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys		830
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 <213> *Caenorhabditis elegans*

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<211> 2704

<212> DNA

<213> *Caenorhabditis elegans*

<400> 44

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<211> 510

<212> PRT

<213> *Caenorhabditis elegans*

<400> 45

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Ser	His	Gln	Thr	Ser	Phe	Pro	Ser	Asp	Phe	Arg	Met	Ser	Glu	Ser	Pro
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Asp	Asp	Thr	Val	Ser	Gly	Lys	Lys	Thr	Thr	Thr	Arg	Arg	Asn	Ala	Trp
	130					135						140			
Gly	Asn	Met	Ser	Tyr	Ala	Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser
145					150					155					160
Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln

1	5	10	15
His Leu Asn Gln	His Asn Asn Pro Tyr	His Pro Met His	Pro His His
20	25	30	
Gln Leu Pro His Met Gln Gln Leu Pro Gln Pro Leu Leu Asn Leu Asn			
35	40	45	
Met Thr Thr Leu Thr Ser Ser Gly Ser Ser Val Ala Ser Ser Ile Gly			
50	55	60	
Gly Gly Ala Gln Cys Ser Pro Cys Ala Ser Gly Ser Ser Thr Ala Ala			
65	70	75	80
Thr Asn Ser Ser Gln Gln Gln Gln Thr Val Gly Gln Met Leu Ala Ala			
85	90	95	
Ser Val Pro Cys Ser Ser Ser Gly Met Thr Leu Gly Met Ser Leu Asn			
100	105	110	
Leu Ser Gln Gly Gly Gly Pro Met Pro Ala Lys Lys Lys Arg Cys Arg			
115	120	125	
Lys Lys Pro Thr Asp Gln Leu Ala Gln Lys Lys Pro Asn Pro Trp Gly			
130	135	140	
Glu Glu Ser Tyr Ser Asp Ile Ile Ala Lys Ala Leu Glu Ser Ala Pro			
145	150	155	160
Asp Gly Arg Leu Lys Leu Asn Glu Ile Tyr Gln Trp Phe Ser Asp Asn			
165	170	175	
Ile Pro Tyr Phe Gly Glu Arg Ser Ser Pro Glu Glu Ala Ala Gly Trp			
180	185	190	
Lys Asn Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met Arg			
195	200	205	
Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro			
210	215	220	
Asp Ala Lys Pro Gly Met Asn Pro Arg Arg Thr Arg Glu Arg Ser Asn			
225	230	235	240
Thr Ile Glu Thr Thr Thr Lys Ala Gln Leu Glu Lys Ser Arg Arg Gly			
245	250	255	
Ala Lys Lys Arg Ile Lys Glu Arg Ala Leu Met Gly Ser Leu His Ser			
260	265	270	
Thr Leu Asn Gly Asn Ser Ile Ala Gly Ser Ile Gln Thr Ile Ser His			
275	280	285	
Asp Leu Tyr Asp Asp Asp Ser Met Gln Gly Ala Phe Asp Asn Val Pro			
290	295	300	
Ser Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser			
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Ser Ser Arg Val Ser Pro Ala Ile Gly Ser Asp Ile Tyr Asp Asp Leu			
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Glu Phe Pro Ser Trp Val Gly Glu Ser Val Pro Ala Ile Pro Ser Asp			
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Ile Val Asp Arg Thr Asp Gln Met Arg Ile Asp Ala Thr Thr His Ile			
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Gly Gly Val Gln Ile Lys Gln Glu Ser Lys Pro Ile Lys Thr Glu Pro			
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Ile Ala Pro Pro Pro Ser Tyr His Glu Leu Asn Ser Val Arg Gly Ser			
385	390	395	400
Cys Ala Gln Asn Pro Leu Leu Arg Asn Pro Ile Val Pro Ser Thr Asn			
405	410	415	

Phe Lys Pro Met Pro Leu Pro Gly Ala Tyr Gly Asn Tyr Gln Asn Gly
 420 425 430
 Gly Ile Thr Pro Ile Asn Trp Leu Ser Thr Ser Asn Ser Ser Pro Leu
 435 440 445
 Pro Gly Ile Gln Ser Cys Gly Ile Val Ala Ala Gln His Thr Val Ala
 450 455 460
 Ser Ser Ser Ala Leu Pro Ile Asp Leu Glu Asn Leu Thr Leu Pro Asp
 465 470 475 480
 Gln Pro Leu Met Asp Thr Met Asp Val Asp Ala Leu Ile Arg His Glu
 485 490 495
 Leu Ser Gln Ala Gly Gly Gln His Ile His Phe Asp Leu
 500 505

<210> 47
 <211> 3504
 <212> DNA
 <213> *Caenorhabditis elegans*

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 cgagaacgcc catcgctgga gaccgagaat ggcaaaggat cgctgctcct ggaaaatgaa 180
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 gtgttcagac agttgaataa tttcggcgaa attgaagtta tatttaacga cgatcaaccc 420
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 aaactggaag agagcctcga tgaggaactc cgtcaatttc gtgcttctct ctgggctcgt 600
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 gaacagtact tgtgtgttgg tgaatcgtag ccgaaagatt tggaatcaaa agtcaaggct 720
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 cattatgtga gagcacacga acgaaaactt gctctagacg tgctcagcgt gtctatagat 1140
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<210> 48

<211> 1167

<212> PRT

<213> *Caenorhabditis elegans*

<400> 48

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			20					25					30		
Thr	Met	Val	Glu	Gln	Trp	Gln	Met	Arg	Glu	Arg	Pro	Ser	Leu	Glu	Thr
			35				40						45		
Glu	Asn	Gly	Lys	Gly	Ser	Leu	Leu	Leu	Glu	Asn	Glu	Gly	Val	Ala	Asp
			50			55					60				
Ile	Ile	Thr	Met	Cys	Pro	Phe	Gly	Glu	Val	Ile	Ser	Val	Val	Phe	Pro
65					70					75					80
Trp	Phe	Leu	Ala	Asn	Val	Arg	Thr	Ser	Leu	Glu	Ile	Lys	Leu	Ser	Asp
				85					90					95	
Phe	Lys	His	Gln	Leu	Phe	Glu	Leu	Ile	Ala	Pro	Met	Lys	Trp	Gly	Thr
			100					105						110	
Tyr	Ser	Val	Lys	Pro	Gln	Asp	Tyr	Val	Phe	Arg	Gln	Leu	Asn	Asn	Phe
			115				120					125			
Gly	Glu	Ile	Glu	Val	Ile	Phe	Asn	Asp	Asp	Gln	Pro	Leu	Ser	Lys	Leu

130	135	140
Glu Leu His Gly Thr Phe	Pro Met Leu Phe Leu Tyr Gln Pro Asp Gly	
145	150	155
Ile Asn Arg Asp Lys Glu Leu Met Ser Asp Ile Ser His Cys Leu Gly		160
	165	170
Tyr Ser Leu Asp Lys Leu Glu Glu Ser Leu Asp Glu Glu Leu Arg Gln		175
	180	185
Phe Arg Ala Ser Leu Trp Ala Arg Thr Lys Lys Thr Cys Leu Thr Arg		190
	195	200
Gly Leu Glu Gly Thr Ser His Tyr Ala Phe Pro Glu Glu Gln Tyr Leu		205
	210	215
Cys Val Gly Glu Ser Cys Pro Lys Asp Leu Glu Ser Lys Val Lys Ala		220
225	230	235
Ala Lys Leu Ser Tyr Gln Met Phe Trp Arg Lys Arg Lys Ala Glu Ile		240
	245	250
Asn Gly Val Cys Glu Lys Met Met Lys Ile Gln Ile Glu Phe Asn Pro		255
	260	265
Asn Glu Thr Pro Lys Ser Leu Leu His Thr Phe Leu Tyr Glu Met Arg		270
	275	280
Lys Leu Asp Val Tyr Asp Thr Asp Asp Pro Ala Asp Glu Gly Trp Phe		285
	290	295
Leu Gln Leu Ala Gly Arg Thr Thr Phe Val Thr Asn Pro Asp Val Lys		300
305	310	315
Leu Thr Ser Tyr Asp Gly Val Arg Ser Glu Leu Glu Ser Tyr Arg Cys		320
	325	330
Pro Gly Phe Val Val Arg Arg Gln Ser Leu Val Leu Lys Asp Tyr Cys		335
	340	345
Arg Pro Lys Pro Leu Tyr Glu Pro His Tyr Val Arg Ala His Glu Arg		350
	355	360
Lys Leu Ala Leu Asp Val Leu Ser Val Ser Ile Asp Ser Thr Pro Lys		365
	370	375
Gln Ser Lys Asn Ser Asp Met Val Met Thr Asp Phe Arg Pro Thr Ala		380
385	390	395
Ser Leu Lys Gln Val Ser Leu Trp Asp Leu Asp Ala Asn Leu Met Ile		400
	405	410
Arg Pro Val Asn Ile Ser Gly Phe Asp Phe Pro Ala Asp Val Asp Met		415
	420	425
Tyr Val Arg Ile Glu Phe Ser Val Tyr Val Gly Thr Leu Thr Leu Ala		430
	435	440
Ser Lys Ser Thr Thr Lys Val Asn Ala Gln Phe Ala Lys Trp Asn Lys		445
	450	455
Glu Met Tyr Thr Phe Asp Leu Tyr Met Lys Asp Met Pro Pro Ser Ala		460
465	470	475
Val Leu Ser Ile Arg Val Leu Tyr Gly Lys Val Lys Leu Lys Ser Glu		480
	485	490
Glu Phe Glu Val Gly Trp Val Asn Met Ser Leu Thr Asp Trp Arg Asp		495
	500	505
Glu Leu Arg Gln Gly Gln Phe Leu Phe His Leu Trp Ala Pro Glu Pro		510
	515	520
Thr Ala Asn Arg Ser Arg Ile Gly Glu Asn Gly Ala Arg Ile Gly Thr		525
530	535	540

945		950		955		960
Gly Ile Glu Asp	Glu Lys Lys Lys Ser	Lys Lys Asp Ser Thr	Lys Asn			
	965		970		975	
Pro Ile Glu Lys	Lys Ile Asp Asn Thr	Gln Ala Met Lys	Lys Tyr Phe			
	980		985		990	
Glu Ser Val Asp	Arg Phe Leu Tyr Ser	Cys Val Gly Tyr Ser	Val Ala			
	995		1000		1005	
Thr Tyr Ile Met	Gly Ile Lys Asp Arg	His Ser Asp Asn	Leu Met Leu			
	1010		1015		1020	
Thr Glu Asp Gly	Lys Tyr Val His Ile	Asp Phe Gly His	Ile Leu Gly			
	1025		1030		1035	
His Gly Lys Thr	Lys Leu Gly Ile Gln	Arg Asp Arg Gln	Pro Phe Ile			
	1045		1050		1055	
Leu Thr Glu His	Phe Met Thr Val Ile	Arg Ser Gly Lys	Ser Val Asp			
	1060		1065		1070	
Gly Asn Ser His	Glu Leu Gln Lys Phe	Lys Thr Leu Cys	Val Glu Ala			
	1075		1080		1085	
Tyr Glu Val Met	Trp Asn Asn Arg Asp	Leu Phe Val Ser	Leu Phe Thr			
	1090		1095		1100	
Leu Met Leu Gly	Met Glu Leu Pro Glu	Leu Ser Thr Lys	Ala Asp Leu			
	1105		1110		1115	
Asp His Leu Lys	Lys Thr Leu Phe Cys	Asn Gly Glu Ser	Lys Glu Glu			
	1125		1130		1135	
Ala Arg Lys Phe	Phe Ala Gly Ile Tyr	Glu Glu Ala Phe	Asn Gly Ser			
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Trp Ser Thr Lys	Thr Asn Trp Leu Phe	His Ala Val Lys	His Tyr			
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<210> 49
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probe/primer derived from C. elegans

<400> 49
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23

<210> 50
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probe/primer derived from C. elegans

<400> 50
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20

<210> 51

<211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probe/primer derived from *C. elegans*

<400> 51
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28

<210> 52
 <211> 3017
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 52
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<210> 53

<211> 3119

<212> DNA

<213> *Caenorhabditis elegans*

<400> 53

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tgattgttgg	gcagagggat	catgacaatc	gagatatgcc	gccgccacat	caacgctacc	1140
acactccagg	tcggcaggat	ccagttgacg	atatgagtag	atttatacca	ccagcttcca	1200
ttcgtccgcc	tccgatgaac	atgcacacaa	ggcctcagcc	tatgcctcaa	caattgcctt	1260
cagttggcgc	aacgtttgcc	catcctctcc	cacatcaggc	gccacataac	ccaggggttt	1320
cacatccgta	ctccattgct	ccacagaccc	attaccggtt	gaacatgaac	ccaattccgc	1380
aatgccgca	aatgccacaa	atgccaccac	ctctccatca	gggatatgga	atgaatgggc	1440
cgagttgctc	ttcagaaaac	aacaatccat	tccacaaaaa	tcaccattat	aatgatatta	1500
gccatccaaa	tactatttcc	tacgactgtg	gtccgaactt	gtacgggttt	ccaactcctt	1560
atccggattt	tcaccatcct	ttcaatcagc	aaccacacca	gccgccacaa	ctatcacaaa	1620
accatacgtc	ccaacaaggc	agtcatcaac	cagggcacca	aggtcaggta	ccgaatgatc	1680

caccaatttc	aagaccagt	ttacaacccat	caacagtcac	cttgacgtg	ttccgtcgg	1740
actgtagaca	gacatttga	aatcgatttt	ttgaaggaga	aagtgaacaa	tccggcgcaa	1800
taattcggtc	tagtaacaaa	ttcattgaag	aatttgattc	gccgatttgt	ggtgtgacag	1860
ttgttcgacc	gcggatgaca	gacgggtgag	ttttggagaa	catcatgccg	gaagatgcac	1920
catatcatga	catttgcaag	ttcattttga	ggctcacatc	agaaagtgt	actttctcag	1980
gagaggggccc	agaagttagt	gatttgaacg	aaaaatgggg	aacaattgtg	tactatgaga	2040
aaaatttgca	aattggcgag	aaaaaatgtt	cgagaggaaa	tttcacgtg	gatggcgcat	2100
tcatttgctc	tgagaatcgt	tacagtctcg	gacttgagcc	aaatccaatt	agagaaccag	2160
tggcggttaa	agttcgtaaa	gcaatagtgg	atggaattcg	cttttcctac	aaaaaagacg	2220
ggagtgtttg	gcttcaaaac	cgcatagaat	acccggtatt	tgtcacttct	gggtatctcg	2280
acgagcaatc	aggaggccta	aagaaggata	aagtgcacaa	agtttacgga	tgtgcgtcta	2340
tcaaaacgtt	tggcttcaac	gtttccaaac	aaatcatcag	agacgcgctt	ctttccaagc	2400
aatgggcaac	aatgtacttg	caaggaaaat	tgactccgat	gaattatata	tacgagaaga	2460
agactcagga	agagctgcga	agggaagcaa	cacgcaccac	tgattcattg	gccaaagtact	2520
gttgtgtccg	tgtctcgctc	tgcaaaggat	ttggagaagc	ataccagaa	cggccgtcaa	2580
ttcatgattg	tccagtttgg	attgagttga	aaatcaacat	tgcctacgat	ttcatggatt	2640
caatctgcc	gtacataacc	aactgcttcg	agccgctagg	aatggaagat	tttgcaaaat	2700
tgggaatcaa	cgctcagtgt	gactaaatga	taactttttt	cactcaccct	actagatact	2760
gatttagtct	tattccaaat	catccaacga	tatcaaactt	tttcctttga	actttgcata	2820
ctatgttatc	acaagttcca	agcagtttca	atacaaacat	aggatatgtt	aacaactttt	2880
gataagaatc	aagttaccaa	ctgttcattg	tgagctttga	gctgtataga	aggacaatgt	2940
atcccatacc	tcaatcttta	atagtcatca	gtcactggtc	ccgcaccaat	tttttcgatt	3000
cgcataatgtc	atatattgca	ccgtggccct	ttttattgta	acttttaata	tattttcttc	3060
ccaacttggtg	aatatgattg	atgaaccacc	attttgagta	ataaatgtat	tttttgtgg	3119

<210> 54

<211> 103

<212> PRT

<213> *Caenorhabditis elegans*

<400> 54

Lys	Lys	Thr	Thr	Thr	Arg	Arg	Asn	Ala	Trp	Gly	Asn	Met	Ser	Tyr	Ala
1				5					10					15	
Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser	Pro	Glu	Lys	Arg	Leu	Thr
			20					25					30		
Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln	Asn	Val	Pro	Tyr	Phe	Arg
			35				40					45			
Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg
	50					55					60				
His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly
65					70					75				80	
Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly
				85					90					95	
Met	Asn	Pro	Arg	Arg	Thr	Arg									
				100											

<210> 55

<211> 41

<212> PRT

<213> *Caenorhabditis elegans*

<400> 55

Thr Phe Met Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu
1 5 10 15
Pro Ile Pro Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln
20 25 30
Leu Glu Pro Pro Leu Asn Ser Ser Pro
35 40

<210> 56

<211> 109

<212> PRT

<213> Caenorhabditis elegans

<400> 56

Asp Asp Thr Val Ser Gly Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp
1 5 10 15
Gly Asn Met Ser Tyr Ala Glu Leu Ile Thr Thr Ala Ile Met Ala Ser
20 25 30
Pro Glu Lys Arg Leu Thr Leu Ala Gln Val Tyr Glu Trp Met Val Gln
35 40 45
Asn Val Pro Tyr Phe Arg Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly
50 55 60
Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met
65 70 75 80
Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn
85 90 95
Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg Thr Arg
100 105

<210> 57

<211> 655

<212> PRT

<213> Homo sapiens

<400> 57

Met Ala Glu Ala Pro Gln Val Val Glu Ile Asp Pro Asp Phe Glu Pro
1 5 10 15
Leu Pro Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Phe
20 25 30
Ser Gln Ser Asn Ser Ala Thr Ser Ser Pro Ala Pro Ser Gly Ser Ala
35 40 45
Ala Ala Asn Pro Asp Ala Ala Ala Gly Leu Pro Ser Ala Ser Ala Ala
50 55 60
Ala Val Ser Ala Asp Phe Met Ser Asn Leu Ser Leu Leu Glu Glu Ser
65 70 75 80
Glu Asp Phe Pro Gln Ala Pro Gly Ser Val Ala Ala Ala Val Ala Ala
85 90 95
Ala Ala Ala Ala Ala Ala Thr Gly Gly Leu Cys Gly Asp Phe Gln Gly
100 105 110
Pro Glu Ala Gly Cys Leu His Pro Ala Pro Pro Gln Pro Pro Pro Pro
115 120 125

Gly	Pro	Val	Ser	Gln	His	Pro	Pro	Val	Pro	Pro	Ala	Ala	Ala	Gly	Pro	130	135	140
Leu	Ala	Gly	Gln	Pro	Arg	Lys	Ser	Ser	Ser	Ser	Arg	Arg	Asn	Ala	Trp	145	150	155
Gly	Asn	Leu	Ser	Tyr	Ala	Asp	Leu	Ile	Thr	Lys	Ala	Ile	Glu	Ser	Ser	165	170	175
Ala	Glu	Lys	Arg	Leu	Thr	Leu	Ser	Gln	Ile	Tyr	Glu	Trp	Met	Val	Lys	180	185	190
Ser	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	195	200	205
Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe	Ile	210	215	220
Arg	Val	Gln	Asn	Glu	Gly	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu	Asn	225	230	235
Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ser	Pro	Arg	Arg	Arg	Ala	Ala	Ser	245	250	255
Met	Asp	Asn	Asn	Ser	Lys	Phe	Ala	Lys	Ser	Arg	Ser	Arg	Ala	Ala	Lys	260	265	270
Lys	Lys	Ala	Ser	Leu	Gln	Ser	Gly	Gln	Glu	Gly	Ala	Gly	Asp	Ser	Pro	275	280	285
Gly	Ser	Gln	Phe	Ser	Lys	Trp	Pro	Ala	Ser	Pro	Gly	Ser	His	Ser	Asn	290	295	300
Asp	Asp	Phe	Asp	Asn	Trp	Ser	Thr	Phe	Arg	Pro	Arg	Thr	Ser	Ser	Asn	305	310	315
Ala	Ser	Thr	Ile	Ser	Gly	Arg	Leu	Ser	Pro	Ile	Met	Thr	Glu	Gln	Asp	325	330	335
Asp	Leu	Gly	Glu	Gly	Asp	Val	His	Ser	Met	Val	Tyr	Pro	Pro	Ser	Ala	340	345	350
Ala	Lys	Met	Ala	Ser	Thr	Leu	Pro	Ser	Leu	Ser	Glu	Ile	Ser	Asn	Pro	355	360	365
Glu	Asn	Met	Glu	Asn	Leu	Leu	Asp	Asn	Leu	Asn	Leu	Leu	Ser	Ser	Pro	370	375	380
Thr	Ser	Leu	Thr	Val	Ser	Thr	Gln	Ser	Ser	Pro	Gly	Thr	Met	Met	Gln	385	390	395
Gln	Thr	Pro	Cys	Tyr	Ser	Phe	Ala	Pro	Pro	Asn	Thr	Ser	Leu	Asn	Ser	405	410	415
Pro	Ser	Pro	Asn	Tyr	Gln	Lys	Tyr	Thr	Tyr	Gly	Gln	Ser	Ser	Met	Ser	420	425	430
Pro	Leu	Pro	Gln	Met	Pro	Ile	Gln	Thr	Leu	Gln	Asp	Asn	Lys	Ser	Ser	435	440	445
Tyr	Gly	Gly	Met	Ser	Gln	Tyr	Asn	Cys	Ala	Pro	Gly	Leu	Leu	Lys	Glu	450	455	460
Leu	Leu	Thr	Ser	Asp	Ser	Pro	Pro	His	Asn	Asp	Ile	Met	Thr	Pro	Val	465	470	475
Asp	Pro	Gly	Val	Ala	Gln	Pro	Asn	Ser	Arg	Val	Leu	Gly	Gln	Asn	Val	485	490	495
Met	Met	Gly	Pro	Asn	Ser	Val	Met	Ser	Thr	Tyr	Gly	Ser	Gln	Ala	Ser	500	505	510
His	Asn	Lys	Met	Met	Asn	Pro	Ser	Ser	His	Thr	His	Pro	Gly	His	Ala	515	520	525
Gln	Gln	Thr	Ser	Ala	Val	Asn	Gly	Arg	Pro	Leu	Pro	His	Thr	Val	Ser			

530		535		540
Thr Met Pro His Thr Ser Gly Met Asn Arg Leu Thr Gln Val Lys Thr				
545		550		555
Pro Val Gln Val Pro Leu Pro His Pro Met Gln Met Ser Ala Leu Gly				560
		565		570
Gly Tyr Ser Ser Val Ser Ser Cys Asn Gly Tyr Gly Arg Met Gly Leu				575
		580		585
Leu His Gln Glu Lys Leu Pro Ser Asp Leu Asp Gly Met Phe Ile Glu				590
		595		600
Arg Leu Asp Cys Asp Met Glu Ser Ile Ile Arg Asn Asp Leu Met Asp				605
		610		615
Gly Asp Thr Leu Asp Phe Asn Phe Asp Asn Val Leu Pro Asn Gln Ser				620
625		630		635
Phe Pro His Ser Val Lys Thr Thr Thr His Ser Trp Val Ser Gly				640
		645		650
				655

<210> 58
 <211> 98
 <212> PRT
 <213> Caenorhabditis elegans

<400> 58
Lys Pro Asn Pro Trp Gly Glu Glu Ser Tyr Ser Asp Ile Ile Ala Lys
1 5 10 15
Ala Leu Glu Ser Ala Pro Asp Gly Arg Leu Lys Leu Asn Glu Ile Tyr
20 25 30
Gln Trp Phe Ser Asp Asn Ile Pro Tyr Phe Gly Glu Arg Ser Ser Pro
35 40 45
Glu Glu Ala Ala Gly Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu
50 55 60
His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser
65 70 75 80
Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg
85 90 95
Thr Arg

<210> 59
 <211> 7
 <212> PRT
 <213> Caenorhabditis elegans

<400> 59
Trp Lys Asn Ser Ile Arg His
1 5

<210> 60
 <211> 121
 <212> PRT
 <213> Caenorhabditis elegans

<400> 60

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
			20					25					30		
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu
		35					40					45			
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly
	50					55					60				
Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp
65					70					75					80
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu
				85					90					95	
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp							
		115						120							

<210> 61

<211> 66

<212> PRT

<213> *Caenorhabditis elegans*

<400> 61

Thr	Met	Glu	Asp	Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe
1				5					10					15	
Gly	Lys	Val	Ile	Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala
			20					25					30		
Ile	Lys	Ile	Leu	Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala
		35				40					45				
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe
	50					55					60				
Leu	Thr														
65															

<210> 62

<211> 45

<212> PRT

<213> *Caenorhabditis elegans*

<400> 62

Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Ala
1				5					10					15	
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys	Thr	Ser
			20					25					30		
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val			
		35					40					45			

<210> 63

<211> 57

<212> PRT

<213> Caenorhabditis elegans

<400> 63

Tyr	Phe	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys
1				5					10					15	
Phe	Val	Met	Gln	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Val	Arg
			20					25					30		
Lys	Cys	Gly	Thr	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ala	Glu
		35					40					45			
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His							
	50						55								

<210> 64

<211> 59

<212> PRT

<213> Caenorhabditis elegans

<400> 64

Ser	Thr	Phe	Ala	Ile	Phe	Tyr	Phe	Gln	Thr	Met	Leu	Phe	Glu	Lys	Pro
1				5				10						15	
Arg	Pro	Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile
		35					40					45			
His	Ala	Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys					
	50						55								

<210> 65

<211> 33

<212> PRT

<213> Caenorhabditis elegans

<400> 65

Leu	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Thr	Asn	Asp	Arg	Leu	Cys	Phe
1				5				10						15	
Val	Met	Glu	Phe	Ala	Ile	Gly	Gly	Asp	Leu	Tyr	Tyr	His	Leu	Asn	Arg
			20					25					30		
Glu															

<210> 66

<211> 21

<212> PRT

<213> Caenorhabditis elegans

<400> 66

Val	Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn
1				5				10						15	
Trp	Arg	Pro	Arg	Phe											
			20												

<210> 67
 <211> 26
 <212> PRT
 <213> Caenorhabditis elegans

<400> 67
 Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ser Glu Ile Val Leu Ala
 1 5 10 15
 Leu Gly Tyr Leu His Ala Asn Ser Ile Val
 20 25

<210> 68
 <211> 39
 <212> PRT
 <213> Caenorhabditis elegans

<400> 68
 Ile Arg Val Ser Phe Cys Lys Gly Phe Gly Glu Thr Tyr Ser Arg Leu
 1 5 10 15
 Lys Val Val Asn Leu Pro Cys Trp Ile Glu Ile Ile Leu His Glu Pro
 20 25 30
 Ala Asp Glu Tyr Asp Thr Val
 35

<210> 69
 <211> 45
 <212> PRT
 <213> Caenorhabditis elegans

<400> 69
 Ser Arg Asn Ser Lys Ser Ser Gln Ile Arg Asn Thr Val Gly Ala Gly
 1 5 10 15
 Ile Gln Leu Ala Tyr Glu Asn Gly Glu Leu Trp Leu Thr Val Leu Thr
 20 25 30
 Asp Gln Ile Val Phe Val Gln Cys Pro Phe Leu Asn Gln
 35 40 45

<210> 70
 <211> 29
 <212> PRT
 <213> Caenorhabditis elegans

<400> 70
 Asn Glu Met Leu Asp Pro Glu Pro Lys Tyr Pro Lys Glu Glu Lys Pro
 1 5 10 15
 Trp Cys Thr Ile Phe Tyr Tyr Glu Leu Thr Val Arg Val
 20 25

<210> 71
 <211> 29
 <212> PRT

<213> Caenorhabditis elegans

<400> 71

Gln Leu Gly Lys Ala Phe Glu Ala Lys Val Pro Thr Ile Thr Ile Asp
1 5 10 15
Gly Ala Thr Gly Ala Ser Asp Glu Cys Arg Met Ser Leu
20 25

<210> 72

<211> 105

<212> PRT

<213> Caenorhabditis elegans

<400> 72

Ser Pro Asp Asp Gly Leu Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg
1 5 10 15
Gln Lys Thr Cys Arg Val Cys Gly Asp His Ala Thr Gly Tyr Asn Phe
20 25 30
Asn Val Ile Thr Cys Glu Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala
35 40 45
Leu Arg Pro Lys Glu Phe Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile
50 55 60
Asn Ser Val Ser Arg Arg Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys
65 70 75 80
Phe Thr Val Gly Met Lys Lys Glu Trp Ile Leu Asn Glu Glu Gln Leu
85 90 95
Arg Arg Arg Lys Asn Ser Arg Leu Asn
100 105

<210> 73

<211> 89

<212> PRT

<213> Caenorhabditis elegans

<400> 73

Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg Gln Lys Thr Cys Arg Val
1 5 10 15
Cys Gly Asp His Ala Thr Gly Tyr Asn Phe Asn Val Ile Thr Cys Glu
20 25 30
Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala Leu Arg Pro Lys Glu Phe
35 40 45
Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile Asn Ser Val Ser Arg Arg
50 55 60
Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys Phe Thr Val Gly Met Lys
65 70 75 80
Lys Glu Trp Ile Leu Asn Glu Glu Gln
85

<210> 74

<211> 73

<212> PRT

<213> *Caenorhabditis elegans*

<400> 74

Asp	Ile	Met	Asn	Ile	Met	Asp	Val	Thr	Met	Arg	Arg	Phe	Val	Lys	Val
1				5					10					15	
Ala	Lys	Gly	Val	Pro	Ala	Phe	Arg	Glu	Val	Ser	Gln	Glu	Gly	Lys	Phe
			20					25					30		
Ser	Leu	Leu	Lys	Gly	Gly	Met	Ile	Glu	Met	Leu	Thr	Val	Arg	Gly	Val
		35				40						45			
Thr	Arg	Tyr	Asp	Ala	Ser	Thr	Asn	Ser	Phe	Lys	Thr	Pro	Thr	Ile	Lys
	50					55					60				
Gly	Gln	Asn	Val	Ser	Val	Asn	Val	Asp							
65						70									

<210> 75

<211> 112

<212> PRT

<213> *Caenorhabditis elegans*

<400> 75

Ser	Gly	Ser	Leu	Val	Asp	Leu	Met	Ile	Lys	Asn	Leu	Thr	Ala	Tyr	Thr
1				5					10					15	
Gln	Gly	Leu	Asn	Glu	Thr	Val	Lys	Asn	Arg	Thr	Ala	Glu	Leu	Glu	Lys
			20					25					30		
Glu	Gln	Glu	Lys	Gly	Asp	Gln	Leu	Leu	Met	Glu	Leu	Leu	Pro	Lys	Ser
		35				40						45			
Val	Ala	Asn	Asp	Leu	Lys	Asn	Gly	Ile	Ala	Val	Asp	Pro	Lys	Val	Tyr
	50					55				60					
Glu	Asn	Ala	Thr	Ile	Leu	Tyr	Ser	Asp	Ile	Val	Gly	Phe	Thr	Ser	Leu
65					70				75					80	
Cys	Ser	Gln	Ser	Gln	Pro	Met	Glu	Val	Val	Thr	Leu	Leu	Ser	Gly	Met
			85					90					95		
Tyr	Gln	Arg	Phe	Asp	Leu	Ile	Ile	Ser	Gln	Gln	Gly	Gly	Tyr	Lys	Val
			100					105					110		

<210> 76

<211> 107

<212> PRT

<213> *Caenorhabditis elegans*

<400> 76

Met	Glu	Thr	Ile	Gly	Asp	Ala	Tyr	Cys	Val	Ala	Ala	Gly	Leu	Pro	Val
1				5					10					15	
Val	Met	Glu	Lys	Asp	His	Val	Lys	Ser	Ile	Cys	Met	Ile	Ala	Leu	Leu
			20					25					30		
Gln	Arg	Asp	Cys	Leu	His	His	Phe	Glu	Ile	Pro	His	Arg	Pro	Gly	Thr
		35				40						45			
Phe	Leu	Asn	Cys	Arg	Trp	Gly	Phe	Asn	Ser	Gly	Pro	Val	Phe	Ala	Gly
	50					55				60					
Val	Ile	Gly	Gln	Lys	Ala	Pro	Arg	Tyr	Ala	Cys	Phe	Gly	Glu	Ala	Val
65					70				75					80	

Ile Leu Ala Ser Lys Met Glu Ser Ser Gly Val Glu Asp Arg Ile Gln
 85 90 95
 Met Thr Leu Ala Ser Gln Gln Leu Leu Glu Glu
 100 105

<210> 77
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans

<400> 77
 Asp Ile Leu Lys Gly Leu Glu Tyr Ile His Ala Ser Ala Ile Asp Phe
 1 5 10 15
 His Gly Asn Leu Thr Leu His Asn Cys Met Leu Asp Ser His Trp Ile
 20 25 30
 Val Lys Leu Ser Gly Phe Gly Val Asn Arg Leu
 35 40

<210> 78
 <211> 15
 <212> PRT
 <213> Caenorhabditis elegans

<400> 78
 Asp Met Tyr Ser Phe Gly Val Ile Leu His Glu Ile Ile Leu Lys
 1 5 10 15

<210> 79
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 79
 Ala Ile Lys Ile Asn Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn
 1 5 10 15
 Tyr Leu Met Glu Ala Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile
 20 25 30
 Val Gln Leu Tyr Gly Val Ile Ser Thr Val Gln Pro Ala Met Val Val
 35 40 45
 Met Glu Met Met Asp Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys
 50 55 60
 Arg Glu Asp
 65

<210> 80
 <211> 54
 <212> PRT
 <213> Caenorhabditis elegans

<400> 80
 Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val Met

1	5	10	15
Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu Gln			
20	25	30	
Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp Leu			
35	40	45	
Ser Phe Val Leu Thr Asp			
50			

<210> 81
 <211> 69
 <212> PRT
 <213> Caenorhabditis elegans

<400> 81
Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp Ile Phe Ala Asn
1 5 10 15
Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln Ser Ser Pro Phe
20 25 30
Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile Glu Ala Lys Ser
35 40 45
Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu Asn Pro Asn Leu
50 55 60
Lys Lys Leu Phe Asp
65

<210> 82
 <211> 52
 <212> PRT
 <213> Caenorhabditis elegans

<400> 82
Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu Thr
1 5 10 15
Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val Ile
20 25 30
Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg Asn
35 40 45
Pro Asp Leu Glu
50

<210> 83
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<400> 83
Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn Gly Gly Val Arg
1 5 10 15
Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr Ile Asp Trp Lys
20 25 30
His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val Asp Asn

35

40

45

<210> 84

<211> 36

<212> PRT

<213> *Caenorhabditis elegans*

<400> 84

Tyr	Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	Gln	Asp	Asp	Val	Val	Leu	Gly
1				5					10					15	
Gln	Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly	Lys	Val	Tyr	Leu	Gly	Thr	Gly
			20					25					30		
Asn	Asn	Val	Val												
			35												

<210> 85

<211> 24

<212> PRT

<213> *Caenorhabditis elegans*

<400> 85

Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly
1				5					10					15	
Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg								
			20												

<210> 86

<211> 13

<212> PRT

<213> *Caenorhabditis elegans*

<400> 86

Gly	Trp	Asp	Trp	Ile	Val	Ala	Pro	Pro	Arg	Tyr	Asn	Ala
1				5					10			

<210> 87

<211> 121

<212> PRT

<213> *Homo sapiens*

<400> 87

Glu	Val	Leu	Glu	Asp	Asn	Asp	Tyr	Gly	Arg	Ala	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Leu	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
			20					25					30		
Asn	Gln	Asp	His	Glu	Lys	Leu	Phe	Glu	Leu	Ile	Leu	Met	Glu	Glu	Ile
		35					40					45			
Arg	Phe	Pro	Arg	Thr	Leu	Gly	Pro	Glu	Ala	Lys	Ser	Leu	Leu	Ser	Gly
	50					55					60				
Leu	Leu	Lys	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Ser	Glu	Asp
65					70					75					80

Ala	Lys	Glu	Ile	Met	Gln	His	Arg	Phe	Phe	Ala	Asn	Ile	Val	Trp	Gln
				85					90					95	
Asp	Val	Tyr	Glu	Lys	Lys	Leu	Ser	Pro	Pro	Phe	Lys	Pro	Gln	Val	Thr
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Arg	Tyr	Phe	Asp							
		115						120							

<210> 88
 <211> 121
 <212> PRT
 <213> *Caenorhabditis elegans*

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
			20					25					30		
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu
		35					40					45			
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly
	50					55					60				
Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp
65					70					75					80
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu
				85					90					95	
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp							
		115						120							

<210> 89
 <211> 66
 <212> PRT
 <213> *Homo sapiens*

Thr	Met	Asn	Glu	Phe	Glu	Tyr	Leu	Lys	Leu	Leu	Gly	Lys	Gly	Thr	Phe
1				5					10					15	
Gly	Lys	Val	Ile	Leu	Val	Lys	Glu	Lys	Ala	Thr	Gly	Arg	Tyr	Tyr	Ala
			20					25					30		
Met	Lys	Ile	Leu	Lys	Lys	Glu	Val	Ile	Val	Ala	Lys	Asp	Glu	Val	Ala
		35					40					45			
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Asn	Ser	Arg	His	Pro	Phe
	50					55					60				
Leu	Thr														
65															

<210> 90
 <211> 66
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 90

Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe
1 5 10 15
Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala
20 25 30
Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala
35 40 45
His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe
50 55 60
Leu Thr
65

<210> 91

<211> 45

<212> PRT

<213> Homo sapiens

<400> 91

Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr
1 5 10 15
Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys
20 25 30
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
35 40 45

<210> 92

<211> 45

<212> PRT

<213> Caenorhabditis elegans

<400> 92

Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala
1 5 10 15
Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser
20 25 30
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
35 40 45

<210> 93

<211> 57

<212> PRT

<213> Homo sapiens

<400> 93

Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys
1 5 10 15
Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser
20 25 30
Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu
35 40 45
Ile Val Ser Ala Leu Asp Tyr Leu His

50

55

<210> 94

<211> 57

<212> PRT

<213> *Caenorhabditis elegans*

<400> 94

Tyr	Phe	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys
1				5					10					15	
Phe	Val	Met	Gln	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Val	Arg
			20					25					30		
Lys	Cys	Gly	Thr	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ala	Glu
		35					40					45			
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His							
	50						55								

<210> 95

<211> 59

<212> PRT

<213> *Homo sapiens*

<400> 95

Asn	Asn	Phe	Ser	Val	Ala	Gln	Cys	Gln	Leu	Met	Lys	Thr	Glu	Arg	Pro
1				5					10					15	
Arg	Pro	Asn	Thr	Phe	Ile	Ile	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	His	Val	Glu	Thr	Pro	Glu	Glu	Arg	Glu	Glu	Trp	Ala
		35					40					45			
Thr	Ala	Ile	Gln	Thr	Val	Ala	Asp	Gly	Leu	Lys					
	50						55								

<210> 96

<211> 59

<212> PRT

<213> *Caenorhabditis elegans*

<400> 96

Ser	Thr	Phe	Ala	Ile	Phe	Tyr	Phe	Gln	Thr	Met	Leu	Phe	Glu	Lys	Pro
1				5					10					15	
Arg	Pro	Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile
		35					40					45			
His	Ala	Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys					
	50						55								

<210> 97

<211> 33

<212> PRT

<213> *Homo sapiens*

<400> 97
 Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe
 1 5 10 15
 Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg
 20 25 30
 Glu

<210> 98
 <211> 33
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 98
 Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe
 1 5 10 15
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg
 20 25 30
 Glu

<210> 99
 <211> 36
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 99
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Asp Phe
 1 5 10 15
 Gly Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu
 20 25 30
 Ala Pro Glu Val
 35

<210> 100
 <211> 37
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 100
 Leu Lys Tyr Ser Phe Gln Leu Cys Phe Val Met Ala Asn Gly Gly Glu
 1 5 10 15
 Leu Phe His Phe Ser Glu Arg Ala Arg Phe Tyr Gly Ala Glu Ile Val
 20 25 30
 Ala Leu Tyr Leu His
 35

<210> 101
 <211> 29
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 101

Phe Gln Met Glu Pro Arg Pro Asn Phe Arg Cys Leu Gln Trp Thr Thr
1 5 10 15
Val Ile Glu Arg Thr Phe Glu Glu Arg Trp Ala Ile Lys
20 25

<210> 102

<211> 24

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 102

Leu Leu Lys Tyr Ser Phe Gln Thr Asp Arg Leu Cys Phe Val Met Glu
1 5 10 15
Ala Gly Gly Leu His Leu Arg Glu
20

<210> 103

<211> 366

<212> PRT

<213> Homo sapiens

<400> 103

Arg Gly Ala Ile Arg Ile Glu Lys Asn Ala Asp Leu Cys Tyr Leu Ser
1 5 10 15
Thr Val Asp Trp Ser Leu Ile Leu Asp Ala Val Ser Asn Asn Tyr Ile
20 25 30
Val Gly Asn Lys Pro Pro Lys Glu Cys Gly Asp Leu Cys Pro Gly Thr
35 40 45
Met Glu Glu Lys Pro Met Cys Glu Lys Thr Thr Ile Asn Asn Glu Tyr
50 55 60
Asn Tyr Arg Cys Trp Thr Thr Asn Arg Cys Gln Lys Met Cys Pro Ser
65 70 75 80
Thr Cys Gly Lys Arg Ala Cys Thr Glu Asn Asn Glu Cys Cys His Pro
85 90 95
Glu Cys Leu Gly Ser Cys Ser Ala Pro Asp Asn Asp Thr Ala Cys Val
100 105 110
Ala Cys Arg His Tyr Tyr Tyr Ala Gly Val Cys Val Pro Ala Cys Pro
115 120 125
Pro Asn Thr Tyr Arg Phe Glu Gly Trp Arg Cys Val Asp Arg Asp Phe
130 135 140
Cys Ala Asn Ile Leu Ser Ala Glu Ser Ser Asp Ser Glu Gly Phe Val
145 150 155 160
Ile His Asp Gly Glu Cys Met Gln Glu Cys Pro Ser Gly Phe Ile Arg
165 170 175
Asn Gly Ser Gln Ser Met Tyr Cys Ile Pro Cys Glu Gly Pro Cys Pro
180 185 190
Lys Val Cys Glu Glu Glu Lys Lys Thr Lys Thr Ile Asp Ser Val Thr
195 200 205
Ser Ala Gln Met Leu Gln Gly Cys Thr Ile Phe Lys Gly Asn Leu Leu
210 215 220

Ile	Asn	Ile	Arg	Arg	Gly	Asn	Asn	Ile	Ala	Ser	Glu	Leu	Glu	Asn	Phe
225					230				235					240	
Met	Gly	Leu	Ile	Glu	Val	Val	Thr	Gly	Tyr	Val	Lys	Ile	Arg	His	Ser
			245					250						255	
His	Ala	Leu	Val	Ser	Leu	Ser	Phe	Leu	Lys	Asn	Leu	Arg	Leu	Ile	Leu
		260					265					270			
Gly	Glu	Glu	Gln	Leu	Glu	Gly	Asn	Tyr	Ser	Phe	Tyr	Val	Leu	Asp	Asn
	275					280					285				
Gln	Asn	Leu	Gln	Gln	Leu	Trp	Asp	Trp	Asp	His	Arg	Asn	Leu	Thr	Ile
	290				295				300						
Lys	Ala	Gly	Lys	Met	Tyr	Phe	Ala	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser
305				310					315					320	
Glu	Ile	Tyr	Arg	Met	Glu	Glu	Val	Thr	Gly	Thr	Lys	Gly	Arg	Gln	Ser
			325					330					335		
Lys	Gly	Asp	Ile	Asn	Thr	Arg	Asn	Asn	Gly	Glu	Arg	Ala	Ser	Cys	Glu
		340					345					350			
Ser	Asp	Val	Leu	His	Phe	Thr	Ser	Thr	Thr	Thr	Ser	Lys	Asn		
	355						360					365			

<210> 104
 <211> 370
 <212> PRT
 <213> Homo sapiens

<400> 104

Arg	Gly	Ser	Val	Arg	Ile	Glu	Lys	Asn	Asn	Glu	Leu	Cys	Tyr	Leu	Ala
1			5					10					15		
Thr	Ile	Asp	Trp	Ser	Arg	Ile	Leu	Asp	Ser	Val	Glu	Asp	Asn	Tyr	Ile
		20					25					30			
Val	Leu	Asn	Lys	Asp	Asp	Asn	Glu	Glu	Cys	Gly	Asp	Ile	Cys	Pro	Gly
	35					40					45				
Thr	Ala	Lys	Gly	Lys	Thr	Asn	Cys	Pro	Ala	Thr	Val	Ile	Asn	Gly	Gln
	50				55					60					
Phe	Val	Glu	Arg	Cys	Trp	Thr	His	Ser	His	Cys	Gln	Lys	Val	Cys	Pro
65				70					75					80	
Thr	Ile	Cys	Lys	Ser	His	Gly	Cys	Thr	Ala	Glu	Gly	Leu	Cys	Cys	His
			85					90					95		
Ser	Glu	Cys	Leu	Gly	Asn	Cys	Ser	Gln	Pro	Asp	Asp	Pro	Thr	Lys	Cys
		100					105					110			
Val	Ala	Cys	Arg	Asn	Phe	Tyr	Leu	Asp	Gly	Arg	Cys	Val	Glu	Thr	Cys
	115						120				125				
Pro	Pro	Pro	Tyr	Tyr	His	Phe	Gln	Asp	Trp	Arg	Cys	Val	Asn	Phe	Ser
	130				135					140					
Phe	Cys	Gln	Asp	Leu	His	His	Lys	Cys	Lys	Asn	Ser	Arg	Arg	Gln	Gly
145				150					155					160	
Cys	His	Gln	Tyr	Val	Ile	His	Asn	Asn	Lys	Cys	Ile	Pro	Glu	Cys	Pro
		165					170					175			
Ser	Gly	Tyr	Thr	Met	Asn	Ser	Ser	Asn	Leu	Leu	Cys	Thr	Pro	Cys	Leu
		180					185					190			
Gly	Pro	Cys	Pro	Lys	Val	Cys	His	Leu	Leu	Glu	Gly	Glu	Lys	Thr	Ile
	195					200						205			

Asp Ser Val Thr Ser Ala Gln Glu Leu Arg Gly Cys Thr Val Ile Asn
 210 215 220
 Gly Ser Leu Ile Ile Asn Ile Arg Gly Gly Asn Asn Leu Ala Ala Glu
 225 230 235 240
 Leu Glu Ala Asn Leu Gly Leu Ile Glu Glu Ile Ser Gly Tyr Leu Lys
 245 250 255
 Ile Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu
 260 265 270
 Arg Leu Ile Arg Gly Glu Thr Leu Glu Ile Gly Asn Tyr Ser Phe Tyr
 275 280 285
 Ala Leu Asp Asn Gln Asn Leu Arg Gln Leu Trp Asp Trp Ser Lys His
 290 295 300
 Asn Leu Thr Ile Thr Gln Gly Lys Leu Phe Phe His Tyr Asn Pro Lys
 305 310 315 320
 Leu Cys Leu Ser Glu Ile His Lys Met Glu Glu Val Ser Gly Thr Lys
 325 330 335
 Gly Arg Gln Glu Arg Asn Asp Ile Ala Leu Lys Thr Asn Gly Asp Gln
 340 345 350
 Ala Ser Cys Glu Asn Glu Leu Leu Lys Phe Ser Tyr Ile Arg Thr Ser
 355 360 365
 Phe Asp
 370

<210> 105

<211> 383

<212> PRT

<213> *Drosophila melanogaster*

<400> 105

Arg Gly Gly Val Arg Ile Glu Lys Asn His Lys Leu Cys Tyr Asp Arg
 1 5 10 15
 Thr Ile Asp Trp Leu Glu Ile Leu Ala Glu Asn Glu Ser Gln Leu Val
 20 25 30
 Val Leu Thr Glu Asn Gly Lys Glu Lys Glu Cys Ser Leu Ser Lys Cys
 35 40 45
 Pro Gly Glu Ile Arg Ile Glu Glu Gly His Asp Asn Thr Ala Ile Glu
 50 55 60
 Gly Glu Leu Asn Ala Ser Cys Gln Leu His Asn Asn Arg Arg Leu Cys
 65 70 75 80
 Trp Asn Ser Lys Leu Cys Gln Thr Lys Cys Pro Glu Lys Cys Arg Asn
 85 90 95
 Asn Cys Ile Asp Glu His Thr Cys Cys Ser Gln Asp Cys Leu Gly Gly
 100 105 110
 Cys Val Ile Asp Lys Asn Gly Asn Glu Ser Cys Ile Ser Cys Arg Asn
 115 120 125
 Val Ser Phe Asn Asn Ile Cys Met Asp Ser Cys Pro Lys Gly Tyr Tyr
 130 135 140
 Gln Phe Asp Ser Arg Cys Val Thr Ala Asn Glu Cys Ile Thr Leu Thr
 145 150 155 160
 Lys Phe Glu Thr Asn Ser Val Tyr Ser Gly Ile Pro Tyr Asn Gly Gln
 165 170 175

Cys	Ile	Thr	His	Cys	Pro	Thr	Gly	Tyr	Gln	Lys	Ser	Glu	Asn	Lys	Arg
			180					185					190		
Met	Cys	Glu	Pro	Cys	Pro	Gly	Gly	Lys	Cys	Asp	Lys	Glu	Cys	Ser	Ser
		195					200					205			
Gly	Leu	Ile	Asp	Ser	Leu	Glu	Arg	Ala	Arg	Glu	Phe	His	Gly	Cys	Thr
	210					215					220				
Ile	Ile	Thr	Gly	Thr	Glu	Pro	Leu	Thr	Ile	Ser	Ile	Lys	Arg	Glu	Ser
225					230				235					240	
Gly	Ala	His	Val	Met	Asp	Glu	Leu	Lys	Tyr	Gly	Leu	Ala	Ala	Val	His
			245					250						255	
Lys	Ile	Gln	Ser	Ser	Leu	Met	Val	His	Leu	Thr	Tyr	Gly	Leu	Lys	Ser
		260					265						270		
Leu	Lys	Phe	Phe	Gln	Ser	Leu	Thr	Glu	Ile	Ser	Gly	Asp	Pro	Pro	Met
	275						280					285			
Asp	Ala	Asp	Lys	Tyr	Ala	Leu	Tyr	Val	Leu	Asp	Asn	Arg	Asp	Leu	Asp
	290					295				300					
Glu	Leu	Trp	Gly	Pro	Asn	Gln	Thr	Val	Phe	Ile	Arg	Lys	Gly	Gly	Val
305					310				315					320	
Phe	Phe	His	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser	Thr	Ile	Asn	Gln	Leu
				325				330						335	
Leu	Pro	Met	Leu	Ala	Ser	Lys	Pro	Lys	Phe	Phe	Glu	Lys	Ser	Asp	Glu
		340					345					350			
Gly	Ala	Asp	Ser	Asn	Gly	Asn	Arg	Gly	Ser	Cys	Gly	Thr	Ala	Val	Leu
	355					360					365				
Asn	Val	Thr	Leu	Gln	Ser	Val	Gly	Ala	Asn	Ser	Ala	Ser	Leu	Asn	
	370					375					380				

<210> 106

<211> 381

<212> PRT

<213> Caenorhabditis elegans

<400> 106

Asn	Gly	Gly	Val	Arg	Ile	Ile	Asp	Asn	Arg	Lys	Leu	Cys	Tyr	Thr	Lys
1			5					10						15	
Thr	Ile	Asp	Trp	Lys	His	Leu	Ile	Thr	Ser	Ser	Ile	Asn	Asp	Val	Val
	20						25					30			
Val	Asp	Asn	Ala	Ala	Glu	Tyr	Ala	Val	Thr	Glu	Thr	Gly	Leu	Met	Cys
	35					40					45				
Pro	Arg	Gly	Ala	Cys	Glu	Glu	Asp	Lys	Gly	Glu	Ser	Lys	Cys	His	Tyr
	50				55					60					
Leu	Glu	Glu	Lys	Asn	Gln	Glu	Gln	Gly	Val	Glu	Arg	Val	Gln	Ser	Cys
65				70					75					80	
Trp	Ser	Asn	Thr	Thr	Cys	Gln	Lys	Ser	Cys	Ala	Tyr	Asp	Arg	Leu	Leu
		85					90						95		
Pro	Thr	Lys	Glu	Ile	Gly	Pro	Gly	Cys	Asp	Ala	Asn	Gly	Asp	Arg	Cys
	100						105					110			
His	Asp	Gln	Cys	Val	Gly	Gly	Cys	Glu	Arg	Val	Asn	Asp	Ala	Thr	Ala
	115					120						125			
Cys	His	Ala	Cys	Lys	Asn	Val	Tyr	His	Lys	Gly	Lys	Cys	Ile	Glu	Lys
	130					135					140				

Cys	Asp	Ala	His	Leu	Tyr	Leu	Leu	Leu	Gln	Arg	Arg	Cys	Val	Thr	Arg
145					150					155					160
Glu	Gln	Cys	Leu	Gln	Leu	Asn	Pro	Val	Leu	Ser	Asn	Lys	Thr	Val	Pro
			165						170						175
Ile	Lys	Ala	Thr	Ala	Gly	Leu	Cys	Ser	Asp	Lys	Cys	Pro	Asp	Gly	Tyr
			180					185					190		
Gln	Ile	Asn	Pro	Asp	Asp	His	Arg	Glu	Cys	Arg	Lys	Cys	Val	Gly	Lys
		195					200					205			
Cys	Glu	Ile	Val	Cys	Glu	Ile	Asn	His	Val	Ile	Asp	Thr	Phe	Pro	Lys
	210					215					220				
Ala	Gln	Ala	Ile	Arg	Leu	Cys	Asn	Ile	Ile	Asp	Gly	Asn	Leu	Thr	Ile
225					230					235					240
Glu	Ile	Arg	Gly	Lys	Gln	Asp	Ser	Gly	Met	Ala	Ser	Glu	Leu	Lys	Asp
			245						250						255
Ile	Phe	Ala	Asn	Ile	His	Thr	Ile	Thr	Gly	Tyr	Leu	Leu	Val	Arg	Gln
			260					265						270	
Ser	Ser	Pro	Phe	Ile	Ser	Leu	Asn	Met	Phe	Arg	Asn	Leu	Arg	Arg	Ile
		275					280					285			
Glu	Ala	Lys	Ser	Leu	Phe	Arg	Asn	Leu	Tyr	Ala	Ile	Thr	Val	Phe	Glu
	290					295					300				
Asn	Pro	Asn	Leu	Lys	Lys	Leu	Phe	Asp	Ser	Thr	Thr	Asp	Leu	Thr	Leu
305				310						315					320
Asp	Arg	Gly	Thr	Val	Ser	Ile	Ala	Asn	Asn	Lys	Met	Leu	Cys	Phe	Lys
			325						330					335	
Tyr	Ile	Lys	Gln	Leu	Met	Ser	Lys	Leu	Asn	Ile	Pro	Leu	Asp	Pro	Ile
			340					345					350		
Asp	Gln	Ser	Glu	Gly	Thr	Asn	Gly	Glu	Lys	Ala	Ile	Cys	Glu	Asp	Met
		355					360					365			
Ala	Ile	Asn	Val	Ser	Ile	Thr	Ala	Val	Asn	Ala	Asp	Ser			
	370					375					380				

<210> 107

<211> 370

<212> PRT

<213> Homo sapiens

<400> 107

Ala	Leu	Pro	Val	Ala	Val	Leu	Leu	Ile	Val	Gly	Gly	Leu	Val	Ile	Met
1				5					10					15	
Leu	Tyr	Val	Phe	His	Arg	Lys	Arg	Asn	Asn	Ser	Arg	Leu	Gly	Asn	Gly
			20					25					30		
Val	Leu	Tyr	Ala	Ser	Val	Asn	Pro	Glu	Tyr	Phe	Ser	Ala	Ala	Asp	Val
		35					40					45			
Tyr	Val	Pro	Asp	Glu	Trp	Glu	Val	Ala	Arg	Glu	Lys	Ile	Thr	Met	Ser
	50					55					60				
Arg	Glu	Leu	Gly	Gln	Gly	Ser	Phe	Gly	Met	Val	Tyr	Glu	Gly	Val	Ala
65					70				75						80
Lys	Gly	Val	Val	Lys	Asp	Glu	Pro	Glu	Thr	Arg	Val	Ala	Ile	Lys	Thr
			85						90					95	
Val	Asn	Glu	Ala	Ala	Ser	Met	Arg	Glu	Arg	Ile	Glu	Phe	Leu	Asn	Glu
			100					105					110		

Ala Ser Val Met Lys Glu Phe Asn Cys His His Val Val Arg Leu Leu
 115 120 125
 Gly Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met Glu Leu Met
 130 135 140
 Thr Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg Pro Glu Met
 145 150 155 160
 Glu Asn Asn Pro Val Leu Ala Pro Pro Ser Leu Ser Lys Met Ile Gln
 165 170 175
 Met Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu Asn Ala Asn Lys
 180 185 190
 Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met Val Ala Glu Asp
 195 200 205
 Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg Asp Ile Tyr Glu
 210 215 220
 Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu Pro Val Arg Trp
 225 230 235 240
 Met Ser Pro Glu Ser Leu Lys Asp Gly Val Phe Thr Thr Tyr Ser Asp
 245 250 255
 Val Trp Ser Phe Gly Val Val Leu Trp Glu Ile Ala Thr Leu Ala Glu
 260 265 270
 Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu Arg Phe Val Met
 275 280 285
 Glu Gly Gly Leu Leu Asp Lys Pro Asp Asn Cys Pro Asp Met Leu Phe
 290 295 300
 Glu Leu Met Arg Met Cys Trp Gln Tyr Asn Pro Lys Met Arg Pro Ser
 305 310 315 320
 Phe Leu Glu Ile Ile Ser Ser Ile Lys Glu Glu Met Glu Pro Gly Phe
 325 330 335
 Arg Glu Val Ser Phe Tyr Tyr Ser Glu Glu Asn Lys Leu Pro Glu Pro
 340 345 350
 Glu Glu Leu Asp Leu Glu Pro Glu Asn Met Glu Ser Val Pro Leu Asp
 355 360 365
 Pro Ser
 370

<210> 108
 <211> 374
 <212> PRT
 <213> Homo sapiens

<400> 108
 Ile Gly Pro Leu Ile Phe Val Phe Leu Phe Ser Val Val Ile Gly Ser
 1 5 10 15
 Ile Tyr Leu Phe Leu Arg Lys Arg Gln Pro Asp Gly Pro Leu Gly Pro
 20 25 30
 Leu Tyr Ala Ser Ser Asn Pro Glu Tyr Leu Ser Ala Ser Asp Val Phe
 35 40 45
 Pro Cys Ser Val Tyr Val Pro Asp Glu Trp Glu Val Ser Arg Glu Lys
 50 55 60
 Ile Thr Leu Leu Arg Glu Leu Gly Gln Gly Ser Phe Gly Met Val Tyr
 65 70 75 80

Glu Gly Asn Ala Arg Asp Ile Ile Lys Gly Glu Ala Glu Thr Arg Val
 85 90 95
 Ala Val Lys Thr Val Asn Glu Ser Ala Ser Leu Arg Glu Arg Ile Glu
 100 105 110
 Phe Leu Asn Glu Ala Ser Val Met Lys Gly Phe Thr Cys His His Val
 115 120 125
 Val Arg Leu Leu Gly Val Val Ser Lys Gly Gln Pro Thr Leu Val Val
 130 135 140
 Met Glu Leu Met Ala His Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu
 145 150 155 160
 Arg Pro Glu Ala Glu Asn Asn Pro Gly Arg Pro Pro Pro Thr Leu Gln
 165 170 175
 Glu Met Ile Gln Met Ala Ala Glu Ile Ala Asp Gly Met Ala Tyr Leu
 180 185 190
 Asn Ala Lys Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met
 195 200 205
 Val Ala His Asp Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg
 210 215 220
 Asp Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu
 225 230 235 240
 Pro Val Arg Trp Met Ala Pro Glu Ser Leu Lys Asp Gly Val Phe Thr
 245 250 255
 Thr Ser Ser Asp Met Trp Ser Phe Gly Val Val Leu Trp Glu Ile Thr
 260 265 270
 Ser Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu
 275 280 285
 Lys Phe Val Met Asp Gly Gly Tyr Leu Asp Gln Pro Asp Asn Cys Pro
 290 295 300
 Glu Arg Val Thr Asp Leu Met Arg Met Cys Trp Gln Phe Asn Pro Lys
 305 310 315 320
 Met Arg Pro Thr Phe Leu Glu Ile Val Asn Leu Leu Lys Asp Asp Leu
 325 330 335
 His Pro Ser Phe Pro Glu Val Ser Phe Phe His Ser Glu Glu Asn Lys
 340 345 350
 Ala Pro Glu Ser Glu Glu Leu Glu Met Glu Phe Glu Asp Met Glu Asn
 355 360 365
 Val Pro Leu Asp Arg Ser
 370

<210> 109

<211> 384

<212> PRT

<213> *Drosophila melanogaster*

<400> 109

Gly Ile Gly Leu Ala Phe Leu Ile Val Ser Leu Phe Gly Tyr Val Cys
 1 5 10 15
 Tyr Leu His Lys Arg Lys Val Pro Ser Asn Asp Leu His Met Asn Thr
 20 25 30
 Glu Val Asn Pro Phe Tyr Ala Ser Met Gln Tyr Ile Pro Asp Asp Trp
 35 40 45

<400> 111

Asn	Ile	Asp	Arg	Glu	Phe	Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys
1				5					10					15	
Lys	Leu	Lys	Asp	Lys	Lys	Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val
			20					25					30		
Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr
		35					40					45			
Leu	Asp	Gly	Arg	Leu	Gln	Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val
	50					55					60				
Val	Tyr	Gly	Lys	Leu	Trp	Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr
65					70					75				80	
Arg	His	Val	Asp	His	Cys	Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met
			85						90					95	
Val	Cys	Val	Asn	Pro	Tyr	His									
			100												

<210> 112

<211> 104

<212> PRT

<213> Homo sapiens

<400> 112

Gly	Gly	Glu	Ser	Glu	Thr	Phe	Ala	Lys	Arg	Ala	Ile	Glu	Ser	Leu	Val
1				5					10					15	
Lys	Lys	Leu	Lys	Glu	Lys	Lys	Asp	Glu	Leu	Asp	Ser	Leu	Ile	Thr	Ala
			20					25					30		
Ile	Thr	Thr	Asn	Gly	Ala	His	Pro	Ser	Lys	Cys	Val	Thr	Ile	Gln	Arg
	35					40						45			
Thr	Leu	Asp	Gly	Arg	Leu	Gln	Val	Ala	Gly	Arg	Lys	Gly	Phe	Pro	His
	50					55					60				
Val	Ile	Tyr	Ala	Arg	Leu	Trp	Arg	Trp	Pro	Asp	Leu	His	Lys	Asn	Glu
65					70					75				80	
Leu	Lys	His	Val	Lys	Tyr	Cys	Gln	Tyr	Ala	Phe	Asp	Leu	Lys	Cys	Asp
			85						90					95	
Ser	Val	Cys	Val	Asn	Pro	Tyr	His								
			100												

<210> 113

<211> 205

<212> PRT

<213> Caenorhabditis elegans

<400> 113

Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Cys	Ser
1				5					10					15	
Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser	Glu	Asn	Arg
		20						25					30		
Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro	Val	Ala	Phe
	35						40					45			
Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser	Tyr	Lys	Lys
	50					55					60				

Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro	Val	Phe	Val	
65					70					75					80	
Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys	Lys	Asp	Lys	
				85					90					95		
Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe	Gly	Phe	Asn	
			100					105					110			
Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys	Gln	Met	Ala	
		115					120					125				
Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr	Ile	Tyr	Glu	
	130					135					140					
Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg	Thr	Thr	Asp	
145				150					155						160	
Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly	Phe	
			165						170					175		
Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys	Pro	Val	Trp	
			180					185					190			
Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp				
	195						200					205				

<210> 114
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 114																
Ile	Ala	Tyr	Phe	Glu	Met	Asp	Val	Gln	Val	Gly	Glu	Thr	Phe	Lys	Val	
1				5					10					15		
Pro	Ser	Ser	Cys	Pro	Ile	Val	Thr	Val	Asp	Gly	Tyr	Val	Asp	Pro	Ser	
			20					25					30			
Gly	Gly	Asp	Arg	Phe	Cys	Leu	Gly	Gln	Leu	Ser	Asn	Val	His	Arg	Thr	
		35					40					45				
Glu	Ala	Ile	Glu	Arg	Ala	Arg	Leu	His	Ile	Gly	Lys	Gly	Val	Gln	Leu	
	50					55				60						
Glu	Cys	Lys	Gly	Glu	Gly	Asp	Val	Trp	Val	Arg	Cys	Leu	Ser	Asp	His	
65				70					75					80		
Ala	Val	Phe	Val	Gln	Ser	Tyr	Tyr	Leu	Asp	Arg	Glu	Ala	Gly	Arg	Ala	
			85					90					95			
Pro	Gly	Asp	Ala	Val	His	Lys	Ile	Tyr	Pro	Ser	Ala	Tyr	Ile	Lys	Val	
		100					105						110			
Phe	Asp	Leu	Arg	Gln	Cys	His	Arg	Gln	Met	Gln	Gln	Gln	Ala	Ala	Thr	
	115						120					125				
Ala	Gln	Ala	Ala	Ala	Ala	Ala	Gln	Ala	Ala	Ala	Val	Ala	Gly	Asn	Ile	
	130					135					140					
Pro	Gly	Pro	Gly	Ser	Val	Gly	Gly	Ile	Ala	Pro	Ala	Ile	Ser	Leu	Ser	
145				150					155					160		
Ala	Ala	Ala	Gly	Ile	Gly	Val	Asp	Asp	Leu	Arg	Arg	Leu	Cys	Ile	Leu	
			165					170					175			
Arg	Met	Ser	Phe	Val	Lys	Gly	Trp	Gly	Pro	Asp	Tyr	Pro	Arg	Gln	Ser	
		180					185						190			
Ile	Lys	Glu	Thr	Pro	Cys	Trp	Ile	Glu	Ile	His	Leu	His	Arg	Ala	Leu	
	195						200					205				

Gln Leu Leu Asp
210

<210> 115
<211> 50
<212> PRT
<213> *Caenorhabditis elegans*

<220>
<221> VARIANT
<222> (1)...(50)
<223> Xaa = Any Amino Acid

<400> 115
Leu Cys Gly Xaa Xaa Leu Val Glu Ala Leu Xaa Xaa Val Cys Gly Xaa
1 5 10 15
Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg Arg Lys Arg Gly Ile Val
20 25 30
Glu Gln Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Gln Leu Glu Xaa Tyr
35 40 45
Cys Asn
50

<210> 116
<211> 39
<212> PRT
<213> *Caenorhabditis elegans*

<400> 116
Leu Cys Gly Arg His Leu Ala Asp Ala Leu Tyr Phe Val Cys Gly Asn
1 5 10 15
Arg Gly Phe Gly Ile Val Glu Glu Cys Cys His Asn Pro Cys Thr Leu
20 25 30
Tyr Gln Leu Glu Asn Tyr Cys
35

<210> 117
<211> 112
<212> PRT
<213> *Caenorhabditis elegans*

<400> 117
Met Asn Ser Val Phe Thr Ile Ile Phe Val Leu Cys Ala Leu Gln Val
1 5 10 15
Ala Ala Ser Phe Arg Gln Ser Phe Gly Pro Ser Met Ser Glu Glu Ser
20 25 30
Ala Ser Met Gln Leu Leu Arg Glu Leu Gln His Asn Met Met Glu Ser
35 40 45
Ala His Arg Pro Met Pro Arg Ala Arg Arg Val Pro Ala Pro Gly Glu
50 55 60
Thr Arg Ala Cys Gly Arg Lys Leu Ile Ser Leu Val Met Ala Val Cys

65		70		75		80									
Gly	Asp	Leu	Cys	Asn	Pro	Gln	Glu	Gly	Lys	Asp	Ile	Ala	Thr	Glu	Cys
		85						90						95	
Cys	Gly	Asn	Gln	Cys	Ser	Asp	Asp	Tyr	Ile	Arg	Ser	Ala	Cys	Cys	Pro
		100						105						110	

<210> 118
 <211> 106
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 118
Met Phe Ser Phe Phe Thr Tyr Phe Leu Leu Ser Ala Leu Leu Leu Ser
1 5 10 15
Ala Ser Cys Arg Gln Pro Ser Met Asp Thr Ser Lys Ala Asp Arg Ile
20 25 30
Leu Arg Glu Ile Glu Met Glu Thr Glu Leu Glu Asn Gln Leu Ser Arg
35 40 45
Ala Arg Arg Val Pro Ala Gly Glu Val Arg Ala Cys Gly Arg Arg Leu
50 55 60
Leu Leu Phe Val Trp Ser Thr Cys Gly Glu Pro Cys Thr Pro Gln Glu
65 70 75 80
Asp Met Asp Ile Ala Thr Val Cys Cys Thr Thr Gln Cys Thr Pro Ser
85 90 95
Tyr Ile Lys Gln Ala Cys Cys Pro Glu Lys
100 105

<210> 119
 <211> 105
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 119
Met Pro Pro Ile Ile Leu Val Phe Phe Leu Val Leu Ile Pro Ala Ser
1 5 10 15
Gln Gln Tyr Pro Phe Ser Leu Glu Ser Leu Asn Asp Gln Ile Ile Asn
20 25 30
Glu Glu Val Ile Glu Tyr Met Leu Glu Asn Ser Ile Arg Ser Ser Arg
35 40 45
Thr Arg Arg Val Pro Asp Glu Lys Lys Ile Tyr Arg Cys Gly Arg Arg
50 55 60
Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys Ala Cys Glu Ser Asn
65 70 75 80
Thr Glu Val Asn Ile Ala Ser Lys Cys Cys Arg Glu Glu Cys Thr Asp
85 90 95
Asp Phe Ile Arg Lys Gln Cys Cys Pro
100 105

<210> 120
 <211> 118
 <212> PRT

<213> *Caenorhabditis elegans*

<400> 120

```
Met Ile Val Thr Leu Ile Val Phe Leu Val Ile Gly Leu Gln Met Ala
 1             5             10             15
His Leu Ser Gln Val Ser Gly Asn Asn Glu Asn Gly Phe Leu Asn Pro
      20             25             30
Phe Asp Leu Ser Gln Trp Ser Glu Glu Ile Leu His Arg Gln Tyr His
      35             40             45
His His His His His His His Gly Asn Arg Ala Arg Arg Thr Leu Glu
      50             55             60
Thr Glu Lys Ile Tyr Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu
65             70             75             80
Ser Ala Cys Asn Gly Pro Cys Glu Pro Gly Thr Glu Gln Asp Leu Ser
      85             90             95
Lys Leu Cys Cys Gly Asn Gln Cys Thr Phe Val Glu Ile Arg Lys Ala
      100             105             110
Cys Cys Ala Asp Lys Leu
      115
```

<210> 121

<211> 106

<212> PRT

<213> *Caenorhabditis elegans*

<400> 121

```
Met Asn Ala Ile Ile Phe Cys Leu Leu Phe Thr Thr Val Thr Ala Thr
 1             5             10             15
Tyr Glu Val Phe Gly Lys Gly Ile Glu His Arg Asn Glu His Leu Ile
      20             25             30
Ile Asn Gln Leu Asp Ile Ile Pro Val Glu Ser Thr Pro Thr Pro Asn
      35             40             45
Arg Ala Ser Arg Val Gln Lys Arg Leu Cys Gly Arg Arg Leu Ile Leu
      50             55             60
Phe Met Leu Ala Thr Cys Gly Glu Cys Asp Thr Asp Ser Ser Glu Asp
65             70             75             80
Leu Ser His Ile Cys Cys Ile Lys Gln Cys Asp Val Gln Asp Ile Ile
      85             90             95
Arg Val Cys Cys Pro Asn Ser Phe Arg Lys
      100             105
```

<210> 122

<211> 107

<212> PRT

<213> *Caenorhabditis elegans*

<400> 122

```
Met Lys Leu Ser Val Val Leu Ala Leu Phe Ile Ile Phe Gln Leu Gly
 1             5             10             15
Ala Ala Ser Leu Met Arg Asn Trp Met Phe Asp Phe Glu Lys Glu Leu
      20             25             30
```

Glu	His	Asp	Tyr	Asp	Asp	Ser	Glu	Ile	Gly	Phe	His	Asn	Ile	His	Ser
	35						40					45			
Leu	Met	Ala	Arg	Ser	Arg	Arg	Gly	Asp	Lys	Val	Lys	Ile	Cys	Gly	Thr
	50					55					60				
Lys	Val	Leu	Lys	Met	Val	Met	Val	Met	Cys	Gly	Gly	Glu	Cys	Ser	Ser
65					70					75				80	
Thr	Asn	Glu	Asn	Ile	Ala	Thr	Glu	Cys	Cys	Glu	Lys	Met	Cys	Thr	Met
				85					90					95	
Glu	Asp	Ile	Thr	Thr	Lys	Cys	Cys	Pro	Ser	Arg					
			100					105							

<210> 123
 <211> 73
 <212> PRT
 <213> Caenorhabditis elegans

Met	Lys	Leu	Leu	His	Ile	Phe	Ile	Ile	Phe	Leu	Leu	Phe	Gln	Ser	Cys
1				5					10				15		
Ser	Asn	Lys	Met	Cys	Gln	Tyr	Ser	Lys	Lys	Lys	Tyr	Lys	Ile	Cys	Gly
		20						25					30		
Val	Arg	Ala	Leu	Lys	His	Met	Lys	Val	Tyr	Cys	Thr	Arg	Gly	Met	Thr
	35					40						45			
Arg	Asp	Tyr	Gly	Lys	Leu	Leu	Val	Thr	Cys	Cys	Ser	Lys	Gly	Cys	Asn
	50				55						60				
Ala	Ile	Asp	Ile	Gln	Arg	Ile	Cys	Leu							
65					70										

<210> 124
 <211> 109
 <212> PRT
 <213> Caenorhabditis elegans

Met	Tyr	Trp	Phe	Arg	Gln	Val	Tyr	Arg	Pro	Ser	Phe	Phe	Phe	Gly	Phe
1				5					10					15	
Leu	Ala	Ile	Leu	Leu	Leu	Ser	Ser	Pro	Thr	Pro	Ser	Asp	Ala	Ser	Ile
		20						25					30		
Arg	Leu	Cys	Gly	Ser	Arg	Leu	Thr	Thr	Thr	Leu	Leu	Ala	Val	Cys	Arg
	35					40						45			
Asn	Gln	Leu	Cys	Thr	Gly	Leu	Thr	Ala	Phe	Lys	Arg	Ser	Ala	Asp	Gln
	50					55					60				
Ser	Tyr	Ala	Pro	Thr	Thr	Arg	Asp	Leu	Phe	His	Ile	His	His	Gln	Gln
65					70					75				80	
Lys	Arg	Gly	Gly	Ile	Ala	Thr	Glu	Cys	Cys	Glu	Lys	Arg	Cys	Ser	Phe
				85					90					95	
Ala	Tyr	Leu	Lys	Thr	Phe	Cys	Cys	Asn	Gln	Asp	Asp	Asn			
			100					105							

<210> 125
 <211> 110

<212> PRT

<213> Homo sapiens

<400> 125

Met	Ala	Leu	Trp	Met	Arg	Leu	Leu	Pro	Leu	Leu	Ala	Leu	Leu	Ala	Leu
1				5				10						15	
Trp	Gly	Pro	Asp	Pro	Ala	Ala	Ala	Phe	Val	Asn	Gln	His	Leu	Cys	Gly
			20					25					30		
Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu	Arg	Gly	Phe
			35				40					45			
Phe	Tyr	Thr	Pro	Lys	Thr	Arg	Arg	Glu	Ala	Glu	Asp	Leu	Gln	Val	Gly
	50					55					60				
Gln	Val	Glu	Leu	Gly	Gly	Gly	Pro	Gly	Ala	Gly	Ser	Leu	Gln	Pro	Leu
65					70					75				80	
Ala	Leu	Glu	Gly	Ser	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys	Cys
				85					90					95	
Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys	Asn		
			100					105					110		

<210> 126

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 126

Ala	Cys	Gly	Arg	Arg	Leu	Leu	Leu	Phe	Val	Trp	Ser	Thr	Cys	Gly	Glu
1				5				10					15		
Pro	Cys	Thr	Xaa	Xaa	Xaa	Gln	Glu	Asp	Met	Asp	Ile	Ala	Thr	Val	Cys
			20					25					30		
Cys	Thr	Thr	Gln	Cys	Thr	Pro	Ser	Tyr	Ile	Lys	Gln	Ala	Cys		
			35				40					45			

<210> 127

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 127

Ala	Cys	Gly	Arg	Lys	Leu	Ile	Ser	Leu	Val	Met	Ala	Val	Cys	Gly	Asp
1				5				10					15		
Leu	Cys	Asn	Xaa	Xaa	Xaa	Gln	Glu	Gly	Lys	Asp	Ile	Ala	Thr	Glu	Cys

	20		25		30
Cys Gly Asn Gln Cys Ser Asp Asp Tyr Ile Arg Ser Ala Cys					
	35		40		45

<210> 128
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Arg Cys Gly Arg Arg Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys					
1	5		10		15
Ala Cys Glu Xaa Xaa Xaa Ser Thr Glu Val Asn Ile Ala Ser Lys Cys					
	20		25		30
Cys Arg Glu Glu Cys Thr Asp Asp Phe Ile Arg Lys Gln Cys					
	35		40		45

<210> 129
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu Ser Ala Cys Asn Gly					
1	5		10		15
Pro Cys Glu Xaa Xaa Xaa Gly Thr Glu Gln Asp Leu Ser Lys Leu Cys					
	20		25		30
Cys Gly Asn Gln Cys Thr Phe Asx Glu Ile Arg Lys Ala Cys					
	35		40		45

<210> 130
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 130

Ile	Cys	Gly	Thr	Lys	Asx	Leu	Lys	Met	Val	Met	Val	Met	Cys	Gly	Gly
1				5					10					15	
Glu	Cys	Ser	Xaa	Xaa	Xaa	Ser	Thr	Asn	Glu	Asn	Ile	Ala	Thr	Glu	Cys
			20					25						30	
Cys	Glu	Lys	Met	Cys	Thr	Met	Glu	Asp	Ile	Thr	Thr	Lys	Cys		
		35					40					45			

<210> 131
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Leu	Cys	Gly	Arg	Arg	Leu	Ile	Leu	Phe	Met	Leu	Ala	Thr	Cys	Gly	Glu
1				5					10					15	
Cys	Asp	Thr	Xaa	Xaa	Xaa	Asp	Ser	Ser	Glu	Asp	Leu	Ser	His	Ile	Cys
			20					25					30		
Cys	Ile	Lys	Gln	Cys	Asp	Val	Gln	Asp	Ile	Ile	Arg	Val	Cys		
		35					40					45			

<210> 132
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
		35					40					45			

<210> 133
 <211> 46
 <212> PRT
 <213> Rabbit

<220>
 <221> VARIANT
 <222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 133

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Thr	Pro	Lys	Ser	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
	35						40					45			

<210> 134

<211> 46

<212> PRT

<213> *Xenopus laevis*

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 134

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Lys	Met	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Ser	Thr	Cys	Ser	Leu	Phe	Gln	Leu	Glu	Ser	Tyr	Cys		
	35						40					45			

<210> 135

<211> 46

<212> PRT

<213> *Xenopus laevis*

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 135

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Lys	Met	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Ser	Thr	Cys	Ser	Leu	Phe	Gln	Leu	Glu	Asn	Tyr	Cys		
	35						40					45			

<210> 136

<211> 46

<212> PRT

<213> Alligator

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 136

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ser	Pro	Lys	Gly	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
		35					40					45			

<210> 137

<211> 46

<212> PRT

<213> Elephant fish

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 137

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Phe	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Pro	Lys	Gln	Ile	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Val	Asn	Leu	Glu	Gly	Tyr	Cys		
		35					40					45			

<210> 138

<211> 46

<212> PRT

<213> Bos taurus

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 138

Leu	Cys	Gly	Ala	Glu	Leu	Val	Asp	Ala	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ala	Pro	Gln	Thr	Gly	Ile	Val	Asp	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Arg	Arg	Leu	Glu	Met	Tyr	Cys		
		35					40					45			

<210> 139

<211> 46

<212> PRT
<213> Canis

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 139
Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Ala Pro Gln Thr Gly Ile Val Asp Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys
35 40 45

<210> 140
<211> 46
<212> PRT
<213> Horse

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 140
Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg Gly Ile Val Glu Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys
35 40 45

<210> 141
<211> 46
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 141
Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg Gly Ile Val Glu Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys
35 40 45

<210> 142
 <211> 46
 <212> PRT
 <213> Amphioxus

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 142
 Leu Cys Gly Ser Thr Leu Ala Asp Val Leu Ser Phe Val Cys Gly Asn
 1 5 10 15
 Arg Gly Tyr Xaa Xaa Xaa Arg Arg Arg Arg Gly Leu Val Glu Glu Cys
 20 25 30
 Cys Tyr Asn Val Cys Asp Tyr Ser Gln Leu Glu Ser Tyr Cys
 35 40 45

<210> 143
 <211> 46
 <212> PRT
 <213> Locust

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 143
 Tyr Cys Gly Glu Lys Leu Ser Asn Ala Leu Lys Leu Val Cys Arg Gly
 1 5 10 15
 Asn Tyr Asn Xaa Xaa Xaa Arg Arg Thr Arg Gly Val Phe Asp Glu Cys
 20 25 30
 Cys Arg Lys Ser Cys Ser Ile Ser Glu Leu Gln Thr Tyr Cys
 35 40 45

<210> 144
 <211> 46
 <212> PRT
 <213> Bommo

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 144
 Tyr Cys Gly Arg His Leu Ala Arg Thr Leu Ala Asp Leu Cys Trp Glu
 1 5 10 15
 Ala Gly Val Xaa Xaa Xaa Arg Gly Lys Arg Gly Ile Val Asp Glu Cys
 20 25 30

Cys Leu Arg Pro Cys Ser Val Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 145
 <211> 46
 <212> PRT
 <213> Bommo

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 145
 Tyr Cys Gly Arg His Leu Ala Asp Thr Leu Ala Asp Leu Cys Phe Gly
 1 5 10 15
 Val Glu Lys Xaa Xaa Xaa Arg Gly Lys Arg Gly Val Val Asp Glu Cys
 20 25 30
 Cys Phe Arg Pro Cys Thr Leu Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 146
 <211> 46
 <212> PRT
 <213> Horn worm

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 146
 Ile Cys Gly Arg His Leu Ala Arg Thr Leu Ala Asp Leu Cys Pro Asn
 1 5 10 15
 Val Glu Tyr Xaa Xaa Xaa Gly Lys Arg Ala Gly Val Ala Asp Asp Cys
 20 25 30
 Cys Asx Asn Ser Cys Thr Met Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 147
 <211> 46
 <212> PRT
 <213> Bombyx mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 147
 Tyr Cys Gly Arg Arg Leu Ala Thr Met Leu Ser Phe Val Cys Asp Asn

1		5		10		15									
Gln	Tyr	Gln	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Ala	Glu	Glu	Cys
		20						25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asn	Glu	Leu	Leu	Gly	Tyr	Cys		
		35					40					45			

<210> 148
 <211> 46
 <212> PRT
 <213> Bombyx mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Tyr	Cys	Gly	Arg	Arg	Leu	Ala	Thr	Met	Leu	Leu	Tyr	Val	Cys	Asp	Asn
1				5					10					15	
Gln	Tyr	Gln	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Val	Glu	Glu	Cys
		20						25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asn	Glu	Leu	Leu	Gly	Tyr	Cys		
		35					40					45			

<210> 149
 <211> 46
 <212> PRT
 <213> Bombys mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Tyr	Cys	Gly	Arg	Arg	Leu	Ala	Ile	Met	Leu	Ser	Tyr	Leu	Cys	Asp	Asn
1				5					10					15	
Gln	Tyr	Leu	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Ala	Glu	Glu	Cys
		20						25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asp	Glu	Leu	Leu	Gly	Tyr	Cys		
		35					40					45			

<210> 150
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 150
 Leu Cys Gly Ser Arg Leu Thr Thr Thr Leu Leu Ala Val Cys Arg Asn
 1 5 10 15
 Gln Leu Cys Xaa Xaa Xaa Gln Lys Arg Gly Gly Ile Ala Thr Glu Cys
 20 25 30
 Cys Glu Lys Arg Cys Ser Phe Ala Tyr Leu Lys Thr Phe Cys
 35 40 45

<210> 151
 <211> 46
 <212> PRT
 <213> Moi 3

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 151
 Leu Cys Gly Ser Thr Leu Ala Asn Met Val Gln Trp Leu Cys Ser Thr
 1 5 10 15
 Tyr Thr Thr Xaa Xaa Xaa Glu Ser Arg Pro Ser Ile Val Cys Glu Cys
 20 25 30
 Cys Phe Asn Gln Cys Thr Val Gln Glu Leu Leu Ala Tyr Cys
 35 40 45

<210> 152
 <211> 46
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 152
 Leu Cys Gly Arg Glu Leu Val Arg Ala Gln Ile Ala Ile Cys Gly Met
 1 5 10 15
 Ser Thr Trp Xaa Xaa Xaa Arg Pro Tyr Val Ala Leu Phe Glu Lys Cys
 20 25 30
 Cys Leu Ile Gly Cys Thr Lys Arg Ser Leu Ala Lys Tyr Cys
 35 40 45

<210> 153
 <211> 46
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 153

Leu	Cys	Gly	His	His	Phe	Val	Arg	Ala	Leu	Val	Arg	Val	Cys	Gly	Gly
1				5					10					15	
Pro	Arg	Trp	Xaa	Xaa	Xaa	Ala	Ala	Ala	Thr	Asn	Pro	Ala	Arg	Tyr	Cys
			20					25					30		
Cys	Leu	Ser	Gly	Cys	Thr	Gln	Gln	Asp	Leu	Leu	Thr	Leu	Cys		
		35					40					45			

<210> 154

<211> 541

<212> PRT

<213> Caenorhabditis elegans

<400> 154

Met	Ser	Met	Thr	Ser	Leu	Ser	Thr	Lys	Ser	Arg	Arg	Gln	Glu	Asp	Val
1				5					10					15	
Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn	Trp
			20					25					30		
Arg	Pro	Arg	Tyr	Phe	Met	Ile	Phe	Asn	Asp	Gly	Ala	Leu	Leu	Gly	Phe
		35					40					45			
Arg	Ala	Lys	Pro	Lys	Glu	Gly	Gln	Pro	Phe	Pro	Glu	Pro	Leu	Asn	Asp
	50				55				60						
Phe	Met	Ile	Lys	Asp	Ala	Ala	Thr	Met	Leu	Phe	Glu	Lys	Pro	Arg	Pro
65				70				75						80	
Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg
			85					90					95		
Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile	His	Ala
			100					105					110		
Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys	Gly	Thr	Asn	Ala	Asn	Pro	Gln
		115					120					125			
Glu	Glu	Leu	Met	Glu	Thr	Asn	Gln	Gln	Pro	Lys	Ile	Asp	Glu	Asp	Ser
	130					135					140				
Glu	Phe	Ala	Gly	Ala	Ala	His	Ala	Ile	Met	Gly	Gln	Pro	Ser	Ser	Gly
145					150				155					160	
His	Gly	Asp	Asn	Cys	Ser	Ile	Asp	Phe	Arg	Ala	Ser	Met	Ile	Ser	Ile
			165					170					175		
Ala	Asp	Thr	Ser	Glu	Ala	Ala	Lys	Arg	Asp	Lys	Ile	Thr	Met	Glu	Asp
		180						185					190		
Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe	Gly	Lys	Val	Ile
		195					200					205			
Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala	Ile	Lys	Ile	Leu
	210					215					220				
Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala	His	Thr	Leu	Thr
225					230					235				240	
Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe	Leu	Thr	Glu	Leu
			245						250					255	
Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys	Phe	Val	Met	Gln	Phe
			260					265					270		

Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg	
				85					90					95		
Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile	His	Ala	
			100					105					110			
Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys	Gly	Thr	Asn	Ala	Asn	Pro	Gln	
		115					120					125				
Glu	Glu	Leu	Met	Glu	Thr	Asn	Gln	Gln	Pro	Lys	Ile	Asp	Glu	Asp	Ser	
		130				135					140					
Glu	Phe	Ala	Gly	Ala	Ala	His	Ala	Ile	Met	Gly	Gln	Pro	Ser	Ser	Gly	
145					150				155						160	
His	Gly	Asp	Asn	Cys	Ser	Ile	Asp	Phe	Arg	Ala	Ser	Met	Ile	Ser	Ile	
			165					170					175			
Ala	Asp	Thr	Ser	Glu	Ala	Ala	Lys	Arg	Asp	Lys	Ile	Thr	Met	Glu	Asp	
		180					185					190				
Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe	Gly	Lys	Val	Ile	
	195					200					205					
Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala	Ile	Lys	Ile	Leu	
	210					215					220					
Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala	His	Thr	Leu	Thr	
225					230					235					240	
Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe	Leu	Thr	Glu	Leu	
			245					250						255		
Lys	Tyr	Ser	Phe	Gln	Thr	Asn	Asp	Arg	Leu	Cys	Phe	Val	Met	Glu	Phe	
		260					265					270				
Ala	Ile	Gly	Gly	Asp	Leu	Tyr	Tyr	His	Leu	Asn	Arg	Glu	Val	Gln	Met	
		275				280					285					
Asn	Lys	Glu	Gly	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ser	Glu	
	290					295					300					
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His	Ala	Asn	Ser	Ile	Val	Tyr	Arg	
305					310					315					320	
Asp	Leu	Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	
			325					330						335		
Ile	Ala	Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys	
		340						345					350			
Thr	Ser	Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu	
		355					360					365				
Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly	Val	Gly	Val	
	370					375					380					
Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr	Ser	Lys	Asp	
385					390					395					400	
His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu	Arg	Phe	Pro	
			405						410					415		
Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly	Leu	Leu	Val	
		420						425					430			
Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp	Ala	Leu	Glu	
		435					440					445				
Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu	Ala	Thr	Tyr	
	450					455					460					
Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln	Ser	Glu	Thr	
465					470					475					480	
Asp	Thr	Ser	Tyr	Phe	Asp	Asn	Glu	Phe	Thr	Ser	Gln	Pro	Val	Gln	Leu	

				485				490					495			
Thr	Pro	Pro	Ser	Arg	Ser	Gly	Ala	Leu	Ala	Thr	Val	Asp	Glu	Gln	Glu	
			500					505					510			
Glu	Met	Gln	Ser	Asn	Phe	Thr	Gln	Phe	Ser	Phe	His	Asn	Val	Met	Gly	
		515					520					525				
Ser	Ile	Asn	Arg	Ile	His	Glu	Ala	Ser	Glu	Asp	Asn	Glu	Asp	Tyr	Asp	
	530					535					540					
Met	Gly															
545																

<210> 156

<211> 483

<212> PRT

<213> Caenorhabditis elegans

<400> 156

Met	Ser	Thr	Glu	Asn	Ala	His	Leu	Gln	Lys	Glu	Asp	Ile	Val	Ile	Glu	
1				5					10					15		
Ser	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn	Trp	Arg	Pro	Arg	
		20						25					30			
Tyr	Phe	Ile	Leu	Phe	Arg	Asp	Gly	Thr	Leu	Leu	Gly	Phe	Arg	Ser	Lys	
		35					40					45				
Pro	Lys	Glu	Asp	Gln	Pro	Leu	Pro	Glu	Pro	Leu	Asn	Asn	Phe	Met	Ile	
	50					55					60					
Arg	Asp	Ala	Ala	Thr	Val	Cys	Leu	Asp	Lys	Pro	Arg	Pro	Asn	Met	Phe	
65					70					75					80	
Ile	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg	Thr	Phe	Tyr	
			85						90					95		
Ala	Asp	Ser	Ala	Asp	Phe	Arg	Gln	Met	Trp	Ile	Glu	Ala	Ile	Gln	Ala	
			100					105						110		
Val	Ser	Ser	His	Asn	Arg	Leu	Lys	Glu	Asn	Ala	Gly	Asn	Thr	Ser	Met	
		115					120					125				
Gln	Glu	Glu	Asp	Thr	Asn	Gly	Asn	Pro	Ser	Gly	Glu	Ser	Asp	Val	Asn	
	130					135					140					
Met	Asp	Ala	Thr	Ser	Thr	Arg	Ser	Asp	Asn	Asp	Phe	Glu	Ser	Thr	Val	
145					150					155					160	
Met	Asn	Ile	Asp	Glu	Pro	Glu	Glu	Val	Pro	Arg	Lys	Asn	Thr	Val	Thr	
			165						170					175		
Met	Asp	Asp	Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Gln	Gly	Thr	Phe	Gly	
		180					185						190			
Lys	Val	Ile	Leu	Cys	Arg	Glu	Lys	Ser	Ser	Asp	Lys	Leu	Tyr	Ala	Ile	
	195						200					205				
Lys	Ile	Ile	Arg	Lys	Glu	Met	Val	Val	Asp	Arg	Ser	Glu	Val	Ala	His	
	210				215						220					
Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Tyr	Ala	Cys	Val	His	Pro	Phe	Leu	
225					230					235					240	
Thr	Leu	Leu	Lys	Tyr	Ser	Phe	Gln	Ala	Gln	Tyr	His	Ile	Cys	Phe	Val	
			245						250					255		
Met	Glu	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Leu	Gln	Arg	Cys	
		260					265						270			
Lys	Thr	Phe	Ser	Glu	Ala	Arg	Thr	Arg	Phe	Tyr	Gly	Ser	Glu	Ile	Ile	

275	280	285
Leu Ala Leu Gly Tyr Leu His His Arg Asn Ile Val Tyr Arg Asp Met		
290	295	300
Lys Leu Glu Asn Leu Leu Leu Asp Arg Asp Gly His Ile Lys Ile Thr		
305	310	315
Asp Phe Gly Leu Cys Lys Glu Glu Ile Lys Tyr Gly Asp Lys Thr Ser		
325	330	335
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Glu Asp		
340	345	350
Ile Asp Tyr Asp Arg Ser Val Asp Trp Trp Gly Val Gly Val Val Met		
355	360	365
Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Ser Ala Lys Glu Asn Gly		
370	375	380
Lys Leu Phe Glu Leu Ile Thr Thr Cys Asp Leu Lys Phe Pro Asn Arg		
385	390	395
Leu Ser Pro Glu Ala Val Thr Leu Leu Ser Gly Leu Leu Glu Arg Val		
405	410	415
Pro Ala Lys Arg Leu Gly Ala Gly Pro Asp Asp Ala Arg Glu Val Ser		
420	425	430
Arg Ala Glu Phe Phe Lys Asp Val Asp Trp Glu Ala Thr Leu Arg Lys		
435	440	445
Glu Val Glu Pro Pro Phe Lys Pro Asn Val Met Ser Glu Thr Asp Thr		
450	455	460
Ser Phe Phe Asp Arg Val Arg Tyr Val Ser Ile Leu Leu Lys Val Ser		
465	470	475
Glu Ala Ile		480

<210> 157
 <211> 480
 <212> PRT
 <213> Homo sapiens

<400> 157

Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly	
1	5
Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp	
20	25
Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Val Asp Val Gln Arg	
35	40
Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys	
50	55
Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp	
65	70
Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg	
85	90
Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys	
100	105
Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn	
115	120
Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg	

130	135	140
Val Thr Met Asn Glu Phe	Glu Tyr Leu Lys	Leu Leu Gly Lys Gly Thr
145	150	155
Phe Gly Lys Val Ile Leu	Val Lys Glu Lys	Ala Thr Gly Arg Tyr Tyr
165	170	175
Ala Met Lys Ile Leu Lys	Lys Glu Val Ile	Val Ala Lys Asp Glu Val
180	185	190
Ala His Thr Leu Thr Glu	Asn Arg Val Leu	Gln Asn Ser Arg His Pro
195	200	205
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Ile Val Ser Ala Leu Asp	Tyr Leu His Ser	Glu Lys Asn Val Val Tyr
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Arg Asp Leu Lys Leu Glu	Asn Leu Met Leu	Asp Lys Asp Gly His Ile
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Lys Ile Thr Asp Phe Gly	Leu Cys Lys Glu	Gly Ile Lys Asp Gly Ala
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Leu Glu Asp Asn Asp Tyr	Gly Arg Ala Val	Asp Trp Trp Gly Leu Gly
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Val Val Met Tyr Glu Met	Met Cys Gly Arg	Leu Pro Phe Tyr Asn Gln
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Asp His Glu Lys Leu Phe	Glu Leu Ile Leu	Met Glu Glu Ile Arg Phe
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Pro Arg Thr Leu Gly Pro	Glu Ala Lys Ser	Leu Leu Ser Gly Leu Leu
370	375	380
Lys Lys Asp Pro Lys Gln	Arg Leu Gly Gly	Gly Ser Glu Asp Ala Lys
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Glu Ile Met Gln His Arg	Phe Phe Ala Gly	Ile Val Trp Gln His Val
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Tyr Glu Lys Lys Leu Ser	Pro Pro Phe Lys	Pro Gln Val Thr Ser Glu
420	425	430
Thr Asp Thr Arg Tyr Phe	Asp Glu Glu Phe	Thr Ala Gln Met Ile Thr
435	440	445
Ile Thr Pro Pro Asp Gln	Asp Asp Ser Met	Glu Cys Val Asp Ser Glu
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<211> 6250

<212> DNA

<213> Caenorhabditis elegans

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 <213> *Caenorhabditis elegans*

<400> 159

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Ile	Val	His	Arg	Asp	Met	Lys	Pro	Asp	Asn	Val	Leu	Ile	Gln	Lys	Asp
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Leu	Tyr	Val	Ser	Pro	Glu	Met	Leu	Ala	Asp	Gly	Asp	Val	Gly	Pro	Gln
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Thr	Asp	Ile	Trp	Gly	Leu	Gly	Cys	Ile	Leu	Phe	Gln	Cys	Leu	Ala	Gly
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Gln	Pro	Pro	Phe	Arg	Ala	Val	Asn	Gln	Tyr	His	Leu	Leu	Lys	Arg	Ile
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Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser
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 Glu Ile Ile Ala Lys Ile Leu Val Arg Asp Pro Ser Thr Arg Ile Thr
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 Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val
 355 360 365
 Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala
 370 375 380
 Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn Ile Gly Pro Val Glu Pro
 385 390 395 400
 Gly Leu Asp Asp Arg Ala Leu Phe Arg Leu Met Asn Leu Gly Asn Asp
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 Ala Ser Ala Ser Gln Pro Ser Thr Pro Ser Asn Val Glu His Arg Gly
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 Asp Pro Phe Val Ser Glu Ile Ala Pro Arg Ala Asn Ser Glu Ala Glu
 435 440 445
 Lys Asn Arg Ala Ala Arg Ala Gln Lys Leu Glu Glu Gln Arg Val Lys
 450 455 460
 Asn Pro Phe His Ile Phe Thr Asn Asn Ser Leu Ile Leu Lys Gln Gly
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 Val Arg Lys Arg Tyr Ser Val Thr Ile Glu Lys Thr Phe Asn Ser Ala
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<213> Caenorhabditis elegans

<400> 160

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Ser	Gln	Val	Phe	Arg	Cys	Arg	Glu	Val	Ala	Thr	Asp	Ala	Met	Phe	Ala
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Val	Lys	Val	Leu	Gln	Lys	Ser	Tyr	Leu	Asn	Arg	His	Gln	Lys	Met	Asp
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Glu	Ser	Leu	Cys	His	Phe	Gly	Ser	Phe	Asp	Met	Leu	Thr	Ser	Lys	Phe
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Phe	Ala	Ser	Glu	Ile	Leu	Thr	Gly	Leu	Gln	Phe	Leu	His	Asp	Asn	Lys
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Thr	Ala	Leu	Tyr	Val	Ser	Pro	Glu	Met	Leu	Ala	Asp	Gly	Asp	Val	Gly
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Lys Lys Ser Arg Lys Glu Met Met Arg Glu Gln Lys Ala Leu Arg Arg		
595	600	605
Lys Gln Glu Lys Glu Glu Lys Lys Ala Leu Lys Ala Glu Gln Val Ser		
610	615	620
Lys Lys Leu Ser Met Gln Met Asp Lys Lys Ser Pro		
625	630	635

<210> 161
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 161
 Ser Pro Val Gly His Phe Ala Lys Trp Ser Gly Ser Pro Cys Ser Arg
 1 5 10 15
 Asn Arg Glu Glu Ala Asp Met Trp Thr Thr Phe Arg Pro Arg Ser Ser
 20 25 30
 Ser Asn Ala Ser Ser Val Ser Thr Arg Leu Ser Pro Leu Arg Pro Glu
 35 40 45
 Ser Glu Val Leu Ala Glu
 50

<210> 162
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 162
 Ser Pro Phe Lys Trp Ser Pro Ser Asp Trp Thr Phe Arg Pro Arg Ser
 1 5 10 15
 Ser Asn Ala Ser Ser Arg Leu Ser Pro Glu Leu Glu
 20 25

<210> 163
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 163
 Ser Pro Gly Ser Gln Phe Ser Lys Trp Pro Ala Ser Pro Gly Ser His
 1 5 10 15
 Ser Asn Asp Asp Phe Asp Asn Trp Ser Thr Phe Arg Pro Arg Thr Ser
 20 25 30
 Ser Asn Ala Ser Thr Ile Ser Gly Arg Leu Ser Pro Ile Met Thr Glu
 35 40 45
 Gln Asp Asp Leu Gly Glu
 50

<210> 164
 <211> 17
 <212> PRT
 <213> Caenorhabditis elegans

<400> 164
 Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser Ser
 1 5 10 15
 Ser

<210> 165
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 165
 Lys Ala Ala Ala Ile Ile Asp Leu Asp Pro Asp Phe Glu Pro Gln Ser
 1 5 10 15
 Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Ile Ala Asn
 20 25 30
 Gln Pro Ser Glu Pro Pro Glu Val Glu Pro
 35 40

<210> 166
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 166
 Ala Asp Pro Asp Phe Glu Pro Arg Pro Arg Ser Cys Thr Trp Pro Leu
 1 5 10 15
 Pro Arg Pro Glu Ser Pro
 20

<210> 167

<211> 42
 <212> PRT
 <213> Homo sapiens

<400> 167
 Glu Ala Pro Gln Val Val Glu Ile Asp Pro Asp Phe Glu Pro Leu Pro
 1 5 10 15
 Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Phe Ser Gln
 20 25 30
 Ser Asn Ser Ala Thr Ser Ser Pro Ala Pro
 35 40

<210> 168
 <211> 41
 <212> PRT
 <213> Caenorhabditis elegans

<400> 168
 Thr Phe Met Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu
 1 5 10 15
 Pro Ile Pro Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln
 20 25 30
 Leu Glu Pro Pro Leu Asn Ser Ser Pro
 35 40

<210> 169
 <211> 14
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 169
 Thr Pro Val Asp Glu Pro Pro Arg Arg Thr Trp Pro Arg Pro
 1 5 10

<210> 170
 <211> 80
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 170
 Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp His Gln Phe Val Glu Asn
 1 5 10 15
 Asn Leu Ile Leu Lys Met Gly Pro Val Asp Lys Arg Lys Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu Gly Pro His Leu Tyr Tyr
 35 40 45
 Val Asp Pro Val Asn Lys Val Leu Lys Gly Glu Ile Pro Trp Ser Gln
 50 55 60
 Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys Thr Phe Phe Val His Thr
 65 70 75 80

<210> 171
 <211> 47
 <212> PRT
 <213> Mus musculus or Homo sapiens or C elegans

<400> 171
 Leu Glu Gln Asn Pro His Phe Asn Leu Ile Leu Lys Gly Lys Gly Leu
 1 5 10 15
 Phe Ala Arg Arg Arg Leu Leu Thr Glu Gly Pro His Leu Tyr Asp Asn
 20 25 30
 Val Leu Lys Gly Glu Pro Trp Glu Lys Asn Thr Phe Phe His Thr
 35 40 45

<210> 172
 <211> 80
 <212> PRT
 <213> Caenorhabditis elegans

<400> 172
 Leu Glu Glu Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn
 1 5 10 15
 Ser Leu Ile Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr
 35 40 45
 Ile Asp Val Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro
 50 55 60
 Cys Met Gln Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr
 65 70 75 80

<210> 173
 <211> 113
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 173
 Ser Asp Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly
 1 5 10 15
 Leu Pro Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile
 20 25 30
 Ile Lys Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg
 35 40 45
 Asp Leu Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly
 50 55 60
 Cys Glu Glu Met Glu Gly Tyr Gly Pro Leu Lys Ala His Pro Phe Phe
 65 70 75 80
 Glu Ser Val Thr Trp Glu Asn Leu His Gln Gln Thr Pro Pro Lys Leu
 85 90 95
 Thr Ala Tyr Leu Pro Ala Met Ser Glu Asp Asp Glu Asp Cys Tyr Gly
 100 105 110
 Asn

<210> 174
 <211> 48
 <212> PRT
 <213> Mus musculus or Homo sapiens or C elegans

<400> 174
 Asp Trp Leu Gly Cys Ile Gln Ala Gly Pro Pro Phe Arg Ala Asn Tyr
 1 5 10 15
 Ile Leu Phe Pro Glu Phe Ala Lys Leu Val Leu Glu Pro Leu Ala His
 20 25 30
 Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala Glu Tyr Asn
 35 40 45

<210> 175
 <211> 122
 <212> PRT
 <213> Caenorhabditis elegans

<400> 175
 Thr Asp Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu Ala Gly
 1 5 10 15
 Gln Pro Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys Arg Ile
 20 25 30
 Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser
 35 40 45
 Glu Ile Ile Ala Lys Ile Leu Val Gly His Glu Thr Leu Lys Thr Glu
 50 55 60
 Tyr Val Ile Phe Asn Leu Gln Val Arg Asp Pro Ser Thr Arg Ile Thr
 65 70 75 80
 Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val
 85 90 95
 Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala
 100 105 110
 Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn
 115 120

<210> 176
 <211> 72
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 176
 Phe Gly Leu Ser Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg
 1 5 10 15
 Lys Ile Gly Ser Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu
 20 25 30
 Ile Val Ser Ala Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg
 35 40 45
 Asp Leu Lys Pro Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln
 50 55 60

Ile Thr Asp Phe Gly Thr Ala Lys
65 70

<210> 177

<211> 31

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 177

Phe Asn Gly Leu Gly Ser Phe Asp Phe Glu Ile Leu Leu His Ile His
1 5 10 15
Arg Asp Lys Pro Asn Leu Asp His Ile Ile Thr Asp Phe Gly Ala
20 25 30

<210> 178

<211> 72

<212> PRT

<213> Caenorhabditis elegans

<400> 178

Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser Leu Cys
1 5 10 15
His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala Ser Glu
20 25 30
Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val His Arg
35 40 45
Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His Ile Leu
50 55 60
Ile Thr Asp Phe Gly Ser Ala Gln
65 70

<210> 179

<211> 48

<212> PRT

<213> Mus musculus or Homo sapiens

<400> 179

Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys
1 5 10 15
Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu Asp His
20 25 30
Pro Phe Phe Val Lys Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu
35 40 45

<210> 180

<211> 15

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 180

Ala Lys Leu Lys Lys Arg Glu Leu His Pro Phe Leu Tyr Phe Asp

1 5 10 15
 <210> 181
 <211> 53
 <212> PRT
 <213> *Caenorhabditis elegans*

 <400> 181
 Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys
 1 5 10 15
 Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu Ser Gln
 20 25 30
 Glu Cys Gly Gly His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His
 35 40 45
 Asp Gln Ala Arg Ile
 50

 <210> 182
 <211> 29
 <212> PRT
 <213> *Mus musculus* or *Homo sapiens*

 <400> 182
 Pro Asn Arg Thr Tyr Tyr Leu Met Asp Pro Ser Gly Asn Ala His Lys
 1 5 10 15
 Trp Cys Arg Lys Ile Gln Glu Val Trp Arg Gln Arg Tyr
 20 25

 <210> 183
 <211> 15
 <212> PRT
 <213> *Mus musculus* or *Homo sapiens* or *C elegans*

 <400> 183
 Pro Asn Arg Tyr Tyr Leu Asp Ala Trp Cys Ile Val Arg Arg Tyr
 1 5 10 15

 <210> 184
 <211> 28
 <212> PRT
 <213> *Caenorhabditis elegans*

 <400> 184
 Pro Asn Arg Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu
 1 5 10 15
 Trp Cys Lys Ala Ile Asn Asp Val Arg Lys Arg Tyr
 20 25

 <210> 185
 <211> 25
 <212> PRT

<213> Mus musculus or Homo sapiens

<400> 185

Pro Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln
1 5 10 15
Tyr Val Ser Pro Glu Leu Leu Thr Glu
20 25

<210> 186

<211> 15

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 186

Pro Glu Ala Arg Phe Val Gly Thr Ala Tyr Val Ser Pro Glu Leu
1 5 10 15

<210> 187

<211> 25

<212> PRT

<213> Caenorhabditis elegans

<400> 187

Pro Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly Thr Ala Leu
1 5 10 15
Tyr Val Ser Pro Glu Met Leu Ala Asp
20 25

<210> 188

<211> 62

<212> PRT

<213> Caenorhabditis elegans

<400> 188

Lys Arg Thr Ser Asn Asp Phe Met Phe Leu Gln Ser Met Gly Glu Gly
1 5 10 15
Ala Tyr Ser Gln Val Phe Arg Cys Arg Glu Val Ala Thr Asp Ala Met
20 25 30
Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys
35 40 45
Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu
50 55 60

<210> 189

<211> 21

<212> PRT

<213> Caenorhabditis elegans or Homo sapiens

<400> 189

Lys Asp Phe Phe Gly Glu Gly Ser Val Arg Glu Ala Thr Ala Lys Leu
1 5 10 15

Lys Lys Arg Glu Leu
20

<210> 190
<211> 62
<212> PRT
<213> Homo sapiens

<400> 190
Lys Lys Arg Pro Glu Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly
1 5 10 15
Ser Phe Ser Thr Val Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu
20 25 30
Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys
35 40 45
Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu
50 55 60

<210> 191
<211> 90
<212> PRT
<213> Caenorhabditis elegans

<400> 191
His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His Asp Gln Ala Arg
1 5 10 15
Ile Tyr Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser
20 25 30
Leu Cys His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala
35 40 45
Ser Glu Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val
50 55 60
His Arg Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His
65 70 75 80
Ile Leu Ile Thr Asp Phe Gly Ser Ala Gln
85 90

<210> 192
<211> 39
<212> PRT
<213> Caenorhabditis elegans

<400> 192
His Pro Phe Leu Tyr Phe Asp Tyr Phe Asn Gly Leu Gly Ser Phe Asp
1 5 10 15
Phe Glu Ile Leu Leu His Ile His Arg Asp Lys Pro Asn Leu Asp His
20 25 30
Ile Ile Thr Asp Phe Gly Ala
35

<210> 193

<211> 90
 <212> PRT
 <213> Homo sapiens

<400> 193

His	Pro	Phe	Phe	Val	Lys	Leu	Tyr	Phe	Thr	Phe	Gln	Asp	Asp	Glu	Lys
1				5					10					15	
Leu	Tyr	Phe	Gly	Leu	Ser	Tyr	Ala	Lys	Asn	Gly	Glu	Leu	Leu	Lys	Tyr
			20					25					30		
Ile	Arg	Lys	Ile	Gly	Ser	Phe	Asp	Glu	Thr	Cys	Thr	Arg	Phe	Tyr	Thr
		35					40					45			
Ala	Glu	Ile	Val	Ser	Ala	Leu	Glu	Tyr	Leu	His	Gly	Lys	Gly	Ile	Ile
	50					55					60				
His	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Leu	Leu	Asn	Glu	Asp	Met	His
65					70					75					80
Ile	Gln	Ile	Thr	Asp	Phe	Gly	Thr	Ala	Lys						
				85					90						

<210> 194
 <211> 98
 <212> PRT
 <213> Caenorhabditis elegans

<400> 194

Glu	Glu	Asn	Thr	Ala	Arg	Arg	Thr	Thr	Phe	Val	Gly	Thr	Ala	Leu	Tyr
1				5					10					15	
Val	Ser	Pro	Glu	Met	Leu	Ala	Asp	Gly	Asp	Val	Gly	Pro	Gln	Thr	Asp
			20					25					30		
Ile	Trp	Gly	Leu	Gly	Cys	Ile	Leu	Phe	Gln	Cys	Leu	Ala	Gly	Gln	Pro
		35					40					45			
Pro	Phe	Arg	Ala	Val	Asn	Gln	Tyr	His	Leu	Leu	Lys	Arg	Ile	Gln	Glu
	50					55					60				
Leu	Asp	Phe	Ser	Phe	Pro	Glu	Gly	Phe	Pro	Glu	Glu	Ala	Ser	Glu	Ile
65					70					75					80
Ile	Ala	Lys	Ile	Leu	Val	Arg	Asp	Pro	Ser	Thr	Arg	Ile	Thr	Ser	Gln
				85					90					95	
Glu	Leu														

<210> 195
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 195

Glu	Ala	Arg	Phe	Val	Gly	Thr	Ala	Tyr	Val	Ser	Pro	Glu	Leu	Asp	Trp
1				5					10					15	
Leu	Gly	Cys	Ile	Gln	Ala	Gly	Pro	Pro	Phe	Arg	Ala	Asn	Tyr	Ile	Leu
		20					25						30		
Phe	Pro	Glu	Phe	Ala	Lys	Leu	Val	Asp	Arg	Glu					
		35					40								

<210> 196
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 196
 Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln Tyr
 1 5 10 15
 Val Ser Pro Glu Leu Leu Thr Glu Lys Ser Ala Cys Lys Ser Ser Asp
 20 25 30
 Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly Leu Pro
 35 40 45
 Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile Ile Lys
 50 55 60
 Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg Asp Leu
 65 70 75 80
 Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly Cys Glu
 85 90 95
 Glu Met

<210> 197
 <211> 35
 <212> PRT
 <213> Caenorhabditis elegans

<400> 197
 Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val Asn Ile Ala
 1 5 10 15
 Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala Thr Phe Gly
 20 25 30
 Glu Pro Glu
 35

<210> 198
 <211> 17
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 198
 Leu Ala His Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala
 1 5 10 15
 Glu

<210> 199
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 199

Leu Lys Ala His Pro Phe Phe Glu Ser Val Thr Trp Glu Asn Leu His
 1 5 10 15
 Gln Gln Thr Pro Pro Lys Leu Thr Ala Tyr Leu Pro Ala Met Ser Glu
 20 25 30
 Asp Asp Glu
 35

<210> 200
 <211> 104
 <212> PRT
 <213> Caenorhabditis elegans

<400> 200
 Leu Glu Glu Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn
 1 5 10 15
 Ser Leu Ile Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr
 35 40 45
 Ile Asp Val Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro
 50 55 60
 Cys Met Gln Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr
 65 70 75 80
 Pro Asn Arg Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu
 85 90 95
 Trp Cys Lys Ala Ile Asn Asp Val
 100

<210> 201
 <211> 59
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 201
 Leu Glu Gln Asn Pro His Phe Asn Leu Ile Leu Lys Gly Lys Gly Leu
 1 5 10 15
 Phe Ala Arg Arg Arg Leu Leu Thr Glu Gly Pro His Leu Tyr Asp Asn
 20 25 30
 Val Leu Lys Gly Glu Pro Trp Glu Lys Asn Thr Phe Phe His Thr Pro
 35 40 45
 Asn Arg Tyr Tyr Leu Asp Ala Trp Cys Ile Val
 50 55

<210> 202
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 202
 Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp His Gln Phe Val Glu Asn
 1 5 10 15

Asn Leu Ile Leu Lys Met Gly Pro Val Asp Lys Arg Lys Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu Gly Pro His Leu Tyr Tyr
 35 40 45
 Val Asp Pro Val Asn Lys Val Leu Lys Gly Glu Ile Pro Trp Ser Gln
 50 55 60
 Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys Thr Phe Phe Val His Thr
 65 70 75 80
 Pro Asn Arg Thr Tyr Tyr Leu Met Asp Pro Ser Gly Asn Ala His Lys
 85 90 95
 Trp Cys Arg Lys Ile Gln Glu Val
 100

<210> 203
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 203
 Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr
 1 5 10 15
 Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys
 20 25 30
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
 35 40 45

<210> 204
 <211> 36
 <212> PRT
 <213> Homo sapiens or Caenorhabditis elegans

<400> 204
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Asp Phe
 1 5 10 15
 Gly Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu
 20 25 30
 Ala Pro Glu Val
 35

<210> 205
 <211> 45
 <212> PRT
 <213> Caenorhabditis elegans

<400> 205
 Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala
 1 5 10 15
 Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser
 20 25 30
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
 35 40 45

<210> 206
 <211> 62
 <212> PRT
 <213> Caenorhabditis elegans

<400> 206
 Leu Cys Lys Glu Glu Ile Lys Tyr Gly Asp Lys Thr Ser Thr Phe Cys
 1 5 10 15
 Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Glu Asp Ile Asp Tyr
 20 25 30
 Asp Arg Ser Val Asp Trp Trp Gly Val Gly Val Val Met Tyr Glu Met
 35 40 45
 Met Cys Gly Arg Leu Pro Phe Ser Ala Lys Glu Asn Gly Lys
 50 55 60

<210> 207
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans or Mus musculus

<400> 207
 Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala
 1 5 10 15
 Pro Glu Val Glu Asp Asp Tyr Arg Val Asp Trp Trp Gly Gly Val Val
 20 25 30
 Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe
 35 40

<210> 208
 <211> 492
 <212> PRT
 <213> Caenorhabditis elegans

<400> 208
 Met Gly Val Asn Asp His Asp Val Ser Val Pro Leu Gln Glu Val Gln
 1 5 10 15
 Ser Arg Thr Val Glu Gly Lys Leu Thr Lys Cys Leu Ala Phe Ser Ala
 20 25 30
 Phe Val Ile Thr Leu Ala Ser Phe Gln Phe Gly Tyr His Ile Gly Cys
 35 40 45
 Val Asn Ala Pro Gly Gly Leu Ile Thr Glu Trp Ile Ile Gly Ser His
 50 55 60
 Lys Asp Leu Phe Asp Lys Glu Leu Ser Arg Glu Asn Ala Asp Leu Ala
 65 70 75 80
 Trp Ser Val Ala Val Ser Val Phe Ala Val Gly Gly Met Ile Gly Gly
 85 90 95
 Leu Ser Ser Gly Trp Leu Ala Asp Lys Val Gly Arg Arg Gly Ala Leu
 100 105 110
 Phe Tyr Asn Asn Leu Leu Ala Leu Ala Ala Ala Ala Leu Met Gly Leu
 115 120 125
 Ala Lys Ser Val Gly Ala Tyr Pro Met Val Ile Leu Gly Arg Leu Ile

130		135		140													
Ile	Gly	Leu	Asn	Cys	Gly	Phe	Ser	Ser	Ala	Leu	Val	Pro	Met	Phe	Leu		
145					150					155					160		
Thr	Glu	Ile	Ser	Pro	Asn	Asn	Leu	Arg	Gly	Met	Leu	Gly	Ser	Leu	His		
				165					170					175			
Gln	Leu	Leu	Val	Thr	Ile	Ala	Ile	Leu	Val	Ser	Gln	Ile	Phe	Gly	Leu		
			180					185					190				
Pro	His	Leu	Leu	Gly	Thr	Gly	Asp	Arg	Trp	Pro	Leu	Ile	Phe	Ala	Phe		
	195						200				205						
Thr	Val	Val	Pro	Ala	Val	Leu	Gln	Leu	Ala	Leu	Leu	Met	Leu	Cys	Pro		
	210					215				220							
Glu	Ser	Pro	Lys	Tyr	Thr	Met	Ala	Val	Arg	Gly	Gln	Arg	Asn	Glu	Ala		
225					230					235				240			
Glu	Ser	Ala	Leu	Lys	Lys	Leu	Arg	Asp	Thr	Glu	Asp	Val	Ser	Thr	Glu		
			245					250					255				
Ile	Glu	Ala	Met	Gln	Glu	Glu	Ala	Thr	Ala	Ala	Gly	Val	Gln	Glu	Lys		
		260						265					270				
Pro	Lys	Met	Gly	Asp	Met	Phe	Lys	Gly	Ala	Leu	Leu	Trp	Pro	Met	Ser		
	275					280						285					
Ile	Ala	Ile	Met	Met	Met	Leu	Ala	Gln	Gln	Leu	Ser	Gly	Ile	Asn	Val		
	290					295				300							
Ala	Met	Phe	Tyr	Ser	Thr	Val	Ile	Phe	Arg	Gly	Ala	Gly	Leu	Thr	Gly		
305					310					315				320			
Asn	Glu	Pro	Phe	Tyr	Ala	Thr	Ile	Gly	Met	Gly	Ala	Val	Asn	Val	Ile		
			325					330					335				
Met	Thr	Leu	Ile	Ser	Val	Trp	Leu	Val	Asp	His	Pro	Lys	Phe	Gly	Arg		
		340					345					350					
Arg	Ser	Leu	Leu	Leu	Ala	Gly	Leu	Thr	Gly	Met	Phe	Val	Ser	Thr	Leu		
	355					360						365					
Leu	Leu	Val	Gly	Ala	Leu	Thr	Ile	Gln	Asn	Ser	Gly	Gly	Asp	Lys	Trp		
	370					375				380							
Ala	Ser	Tyr	Ser	Ala	Ile	Gly	Phe	Val	Leu	Leu	Phe	Val	Ile	Ser	Phe		
385					390					395				400			
Ala	Thr	Gly	Pro	Gly	Ala	Ile	Pro	Trp	Phe	Phe	Val	Ser	Glu	Ile	Phe		
			405					410					415				
Asp	Ser	Ser	Ala	Arg	Gly	Asn	Ala	Asn	Ser	Ile	Ala	Val	Met	Val	Asn		
		420						425				430					
Trp	Ala	Ala	Asn	Leu	Leu	Val	Gly	Leu	Thr	Phe	Leu	Pro	Ile	Asn	Asn		
	435					440						445					
Leu	Met	Gln	Gln	Tyr	Ser	Phe	Phe	Ile	Phe	Ser	Gly	Phe	Leu	Ala	Phe		
	450					455				460							
Phe	Ile	Phe	Tyr	Thr	Trp	Lys	Phe	Val	Pro	Glu	Thr	Lys	Gly	Lys	Ser		
465				470					475				480				
Ile	Glu	Gln	Ile	Gln	Ala	Glu	Phe	Glu	Lys	Arg	Lys						
			485					490									

<210> 209

<211> 22

<212> PRT

<213> Caenorhabditis elegans

<400> 209

Arg Asn Glu Ala Glu Ser Ala Leu Lys Lys Leu Arg Asp Thr Glu Asp
1 5 10 15
Val Ser Thr Glu Ile Glu
20

<210> 210

<211> 28

<212> DNA

<213> *Caenorhabditis elegans*

<400> 210

tctcgttggt tgccgtcgga tgtctgcc

28

<210> 211

<211> 223

<212> PRT

<213> Ascoris suum

<400> 211

Ala Lys Asn Asn Gly Glu Phe Val Arg Cys Val His Ser Val Gly Gln
1 5 10 15
Pro Lys Pro Val Ala Thr Lys Val Ile Asn His Trp Pro Cys Asn Pro
20 25 30
Glu Lys Thr Ile Ile Ala His Arg Pro Ala Glu Arg Glu Ile Trp Ser
35 40 45
Phe Gly Ser Gly Tyr Gly Gly Asn Ser Leu Leu Gly Lys Lys Cys Phe
50 55 60
Ala Leu Arg Ile Ala Met Asn Ile Gly Tyr Asp Glu Gly Trp Met Ala
65 70 75 80
Glu His Met Leu Ile Met Gly Val Thr Ser Pro Lys Gly Glu Glu Arg
85 90 95
Phe Val Ala Ala Ala Phe Pro Ser Ala Cys Gly Lys Thr Asn Leu Ala
100 105 110
Met Leu Glu Pro Thr Ile Pro Gly Trp Lys Val Arg Val Ile Gly Asp
115 120 125
Asp Ile Ala Trp Met Lys Phe Gly Ala Asp Gly Arg Leu Tyr Ala Ile
130 135 140
Asn Pro Glu Tyr Gly Phe Phe Gly Val Ala Pro Gly Thr Ser His Lys
145 150 155 160
Thr Asn Pro Met Ala Met Ala Ser Phe Gln Glu Asn Thr Ile Phe Thr
165 170 175
Asn Val Ala Glu Thr Ala Asp Gly Glu Tyr Phe Trp Glu Gly Leu Glu
180 185 190
His Glu Val Lys Asn Pro Lys Val Asp Met Ile Asn Trp Leu Gly Glu
195 200 205
Pro Trp His Ile Gly Asp Glu Ser Lys Ala Ala His Pro Asn Ser
210 215 220

<210> 212

<211> 176

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 212

Ala	Asn	Phe	Val	Arg	Cys	His	Ser	Val	Gly	Pro	Pro	Val	Val	Ile	Asn
1				5					10					15	
His	Trp	Pro	Cys	Asn	Pro	Glu	Ile	Ala	His	Arg	Pro	Glu	Arg	Glu	Ile
			20					25					30		
Trp	Ser	Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Asn	Ser	Leu	Leu	Gly	Lys	Lys
		35					40					45			
Cys	Phe	Ala	Leu	Arg	Ile	Ala	Asn	Ile	Asp	Glu	Gly	Trp	Met	Ala	Glu
	50					55					60				
His	Met	Leu	Ile	Met	Gly	Val	Thr	Pro	Gly	Glu	Phe	Ala	Ala	Ala	Phe
65					70					75					80
Pro	Ser	Ala	Cys	Gly	Lys	Thr	Asn	Leu	Ala	Met	Leu	Glu	Pro	Thr	Pro
				85					90					95	
Gly	Trp	Lys	Val	Arg	Gly	Asp	Asp	Ile	Ala	Trp	Met	Lys	Phe	Gly	Asp
			100					105						110	
Gly	Arg	Leu	Tyr	Ala	Ile	Asn	Pro	Glu	Gly	Phe	Phe	Gly	Val	Ala	Pro
		115					120					125			
Gly	Thr	Ser	Lys	Thr	Asn	Pro	Met	Ala	Ala	Phe	Gln	Asn	Ile	Phe	Thr
	130					135					140				
Asn	Val	Ala	Glu	Thr	Ala	Gly	Glu	Tyr	Phe	Trp	Glu	Gly	Leu	Glu	Glu
145					150					155					160
Val	Asp	Trp	Leu	Gly	Glu	Trp	His	Ile	Gly	Ala	Ala	His	Pro	Asn	Ser
			165						170					175	

<210> 213

<211> 223

<212> PRT

<213> Caenorhabditis elegans

<400> 213

Ala	Leu	Gly	Asn	Gln	Asp	Phe	Val	Arg	Cys	Ile	His	Ser	Val	Gly	Leu
1				5					10					15	
Pro	Arg	Pro	Val	Lys	Gln	Arg	Val	Ile	Asn	His	Trp	Pro	Cys	Asn	Pro
			20					25					30		
Glu	Arg	Val	Leu	Ile	Ala	His	Arg	Pro	Pro	Glu	Arg	Glu	Ile	Trp	Ser
		35					40					45			
Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Asn	Ser	Leu	Leu	Gly	Lys	Lys	Cys	Phe
	50					55					60				
Ala	Leu	Arg	Ile	Ala	Ser	Asn	Ile	Ala	Lys	Asp	Glu	Gly	Trp	Met	Ala
65					70					75					80
Glu	His	Met	Leu	Ile	Met	Gly	Val	Thr	Arg	Pro	Cys	Gly	Arg	Glu	His
			85						90					95	
Phe	Ile	Ala	Ala	Ala	Phe	Pro	Ser	Ala	Cys	Gly	Lys	Thr	Asn	Leu	Ala
		100						105					110		
Met	Leu	Glu	Pro	Thr	Leu	Pro	Gly	Trp	Lys	Val	Arg	Cys	Val	Gly	Asp
		115					120					125			
Asp	Ile	Ala	Trp	Met	Lys	Phe	Gly	Glu	Asp	Gly	Arg	Leu	Tyr	Ala	Ile
	130					135					140				

Asn	Pro	Glu	Ala	Gly	Phe	Phe	Gly	Val	Ala	Pro	Gly	Thr	Ser	Asn	Lys
145					150				155					160	
Thr	Asn	Pro	Met	Ala	Val	Ala	Thr	Phe	Gln	Lys	Asn	Ser	Ile	Phe	Thr
			165					170					175		
Asn	Val	Ala	Glu	Thr	Ala	Asn	Gly	Glu	Tyr	Phe	Trp	Glu	Gly	Leu	Glu
		180					185					190			
Asp	Glu	Ile	Ala	Asp	Lys	Asn	Val	Asp	Ile	Thr	Thr	Trp	Leu	Gly	Glu
	195					200				205					
Lys	Trp	His	Ile	Gly	Glu	Pro	Gly	Val	Ala	Ala	His	Pro	Asn	Ser	
	210					215					220				

<210> 214
 <211> 173
 <212> PRT
 <213> Ascoris suum

<400> 214

Lys	Gly	Asp	Phe	Val	Ser	Leu	Pro	Lys	His	Val	Gln	Arg	Phe	Val	Ala
1				5					10					15	
Glu	Lys	Ala	Glu	Leu	Met	Lys	Pro	Ser	Ala	Ile	Phe	Ile	Cys	Asp	Gly
		20					25					30			
Ser	Gln	Asn	Glu	Ala	Asp	Glu	Leu	Ile	Ala	Arg	Cys	Val	Glu	Arg	Gly
	35					40					45				
Val	Leu	Val	Pro	Leu	Lys	Ala	Tyr	Lys	Asn	Asn	Tyr	Leu	Cys	Arg	Thr
	50				55					60					
Asp	Pro	Arg	Asp	Val	Ala	Arg	Val	Glu	Ser	Lys	Thr	Trp	Met	Ile	Thr
65				70				75						80	
Pro	Glu	Lys	Tyr	Asp	Ser	Val	Cys	His	Thr	Pro	Glu	Gly	Val	Lys	Pro
			85					90					95		
Met	Met	Gly	Gln	Trp	Met	Ser	Pro	Asp	Glu	Phe	Gly	Lys	Glu	Leu	Asp
		100					105						110		
Asp	Arg	Phe	Pro	Gly	Cys	Met	Ala	Gly	Arg	Thr	Met	Tyr	Val	Ile	Pro
	115					120					125				
Tyr	Ser	Met	Gly	Pro	Val	Gly	Gly	Pro	Leu	Ser	Lys	Ile	Gly	Ile	Glu
	130					135					140				
Leu	Thr	Asp	Ser	Asp	Tyr	Val	Val	Leu	Cys	Met	Arg	Ile	Met	Thr	Arg
145				150				155						160	
Met	Gly	Glu	Pro	Val	Leu	Lys	Ala	Leu	Ala	Lys	Asn	Asn			
			165					170							

<210> 215
 <211> 120
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 215

Gly	Asp	Phe	Leu	Pro	Val	Gln	Arg	Phe	Ala	Glu	Lys	Ala	Glu	Leu	Met
1			5					10					15		
Pro	Ile	Phe	Ile	Cys	Asp	Gly	Ser	Gln	Glu	Ala	Asp	Glu	Leu	Ile	Glu
		20				25						30			
Arg	Gly	Leu	Leu	Ala	Tyr	Asn	Asn	Tyr	Cys	Arg	Thr	Asp	Pro	Asp	Val

35	40	45
Ala Arg Val Glu Ser Lys Thr Trp Met Thr Lys Tyr Asp Val His Thr		
50	55	60
Glu Gly Val Pro Met Gly Trp Pro Glu Leu Asp Arg Phe Pro Gly Cys		
65	70	75
Met Ala Gly Arg Met Tyr Val Ile Pro Ser Met Gly Pro Val Gly Gly		80
	85	90
Pro Leu Ser Lys Ile Gly Ile Leu Thr Asp Ser Tyr Val Val Leu Met		95
	100	105
Arg Ile Met Thr Arg Val Ala Leu		110
115	120	

<210> 216
 <211> 173
 <212> PRT
 <213> Caenorhabditis elegans

<400> 216
Gln Gly Asp Phe His Leu Leu Pro Ala Lys Val Gln Arg Phe Ile Ala
1 5 10 15
Glu Lys Ala Glu Leu Met Arg Pro Arg Gly Ile Phe Ile Cys Asp Gly
20 25 30
Ser Gln His Glu Ala Asp Glu Leu Ile Asp Lys Leu Ile Glu Arg Gly
35 40 45
Met Leu Ser Lys Leu Glu Ala Tyr Glu Asn Asn Tyr Ile Cys Arg Thr
50 55 60
Asp Pro Lys Asp Val Ala Arg Val Glu Ser Lys Thr Trp Met Val Thr
65 70 75 80
Lys Asn Lys Tyr Asp Thr Val Thr His Thr Lys Glu Gly Val Glu Pro
85 90 95
Ile Met Gly His Trp Leu Ala Pro Glu Asp Leu Ala Thr Glu Leu Asp
100 105 110
Ser Arg Phe Pro Gly Cys Met Ala Gly Arg Ile Met Tyr Val Ile Pro
115 120 125
Phe Ser Met Gly Pro Val Gly Gly Pro Leu Ser Lys Ile Gly Ile Gln
130 135 140
Leu Thr Asp Ser Asn Tyr Val Val Leu Ser Met Arg Ile Met Thr Arg
145 150 155 160
Val Asn Asn Asp Val Trp Asp Ala Leu Gly Asn Gln Asp
165 170

<210> 217
 <211> 107
 <212> PRT
 <213> Ascoris suum

<400> 217
Arg Phe Thr Ala Pro Ala Gly Gln Cys Pro Ile Ile His Pro Asp Trp
1 5 10 15
Glu Lys Pro Glu Gly Val Pro Ile Asp Ala Ile Ile Phe Gly Gly Arg
20 25 30

Arg	Pro	Glu	Gly	Val	Pro	Leu	Val	Phe	Glu	Ser	Arg	Ser	Trp	Val	His
		35					40					45			
Gly	Ile	Phe	Val	Gly	Ala	Cys	Val	Lys	Ser	Glu	Ala	Thr	Ala	Ala	Ala
	50					55				60					
Glu	His	Thr	Gly	Lys	Gln	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro
65					70				75						80
Phe	Met	Gly	Tyr	Asn	Phe	Gly	Arg	Tyr	Met	Arg	His	Trp	Met	Lys	Leu
				85				90						95	
Gly	Gln	Pro	Pro	His	Lys	Val	Pro	Lys	Ile	Phe					
			100					105							

<210> 218

<211> 77

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 218

Arg	Phe	Ala	Pro	Ala	Gln	Cys	Pro	Ile	Ile	His	Pro	Asp	Trp	Glu	Pro
1				5					10					15	
Gly	Val	Pro	Ile	Ala	Ile	Ile	Phe	Gly	Gly	Arg	Arg	Pro	Gly	Val	Pro
			20					25					30		
Leu	Glu	Ser	Trp	His	Gly	Phe	Gly	Cys	Lys	Ser	Glu	Ala	Thr	Ala	Ala
		35					40					45			
Ala	Glu	Thr	Gly	Lys	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro	Phe
	50					55					60				
Met	Gly	Tyr	Asn	Phe	Gly	Tyr	His	Trp	Leu	Lys	Val	Phe			
65					70					75					

<210> 219

<211> 107

<212> PRT

<213> Caenorhabditis elegans

<400> 219

Arg	Phe	Ala	Ala	Pro	Ala	Asn	Gln	Cys	Pro	Ile	Ile	His	Pro	Asp	Trp
1				5					10					15	
Glu	Ser	Pro	Gln	Gly	Val	Pro	Ile	Glu	Ala	Ile	Ile	Phe	Gly	Gly	Arg
			20					25					30		
Arg	Pro	Gln	Gly	Val	Pro	Leu	Ile	Tyr	Glu	Thr	Asn	Ser	Trp	Glu	His
		35					40					45			
Gly	Val	Phe	Thr	Gly	Ser	Cys	Leu	Lys	Ser	Glu	Ala	Thr	Ala	Ala	Ala
	50					55					60				
Glu	Phe	Thr	Gly	Lys	Thr	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro
65					70					75					80
Phe	Met	Gly	Tyr	Asn	Phe	Gly	Lys	Tyr	Leu	Gln	His	Trp	Leu	Asp	Leu
				85					90					95	
Lys	Thr	Asp	Ser	Arg	Lys	Val	Ile	Asp	Phe	Phe					
			100					105							

<210> 220

<211> 116

<212> PRT

<213> Ascoris suum

<400> 220

Val	Pro	Lys	Ile	Phe	His	Val	Asn	Trp	Phe	Arg	Gln	Ser	Ala	Asp	His
1				5					10					15	
Lys	Phe	Leu	Trp	Pro	Gly	Tyr	Gly	Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp
		20						25					30		
Ile	Leu	Arg	Arg	Cys	Ser	Gly	Asp	Ala	Thr	Ile	Ala	Glu	Glu	Thr	Pro
		35					40					45			
Ile	Gly	Phe	Ile	Pro	Lys	Lys	Gly	Thr	Ile	Asn	Leu	Glu	Gly	Leu	Pro
	50					55					60				
Asn	Val	Asn	Trp	Asp	Glu	Leu	Met	Ser	Ile	Pro	Lys	Ser	Tyr	Trp	Leu
65					70					75					80
Glu	Asp	Met	Val	Glu	Thr	Lys	Thr	Phe	Phe	Glu	Asn	Gln	Val	Gly	Ser
			85					90						95	
Asp	Leu	Pro	Pro	Glu	Ile	Ala	Lys	Glu	Leu	Glu	Ala	Gln	Thr	Glu	Arg
			100					105						110	
Ile	Lys	Ala	Leu												
			115												

<210> 221

<211> 68

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 221

Pro	Lys	Ile	His	Val	Asn	Trp	Phe	Arg	Lys	Phe	Leu	Trp	Pro	Gly	Gly
1				5					10					15	
Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp	Ile	Arg	Arg	Gly	Ile	Glu	Thr	Pro
			20					25					30		
Ile	Gly	Pro	Lys	Gly	Ile	Asn	Leu	Glu	Gly	Leu	Val	Asn	Trp	Asp	Glu
		35					40					45			
Leu	Met	Ser	Pro	Tyr	Trp	Asp	Glu	Phe	Gln	Val	Gly	Asp	Leu	Pro	Glu
	50					55					60				
Ala	Gln	Arg	Leu												
65															

<210> 222

<211> 116

<212> PRT

<213> Caenorhabditis elegans

<400> 222

Met	Pro	Lys	Ile	Tyr	His	Val	Asn	Trp	Phe	Arg	Lys	Asp	Ser	Asn	Asn
1				5					10					15	
Lys	Phe	Leu	Trp	Pro	Gly	Phe	Gly	Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp
		20						25					30		
Ile	Ile	Arg	Arg	Leu	Asp	Gly	Glu	Gln	Glu	Ile	Gly	Val	Glu	Thr	Pro
		35					40					45			
Ile	Gly	Thr	Val	Pro	Ala	Lys	Gly	Ser	Ile	Asn	Leu	Glu	Gly	Leu	Gly

50		55		60
Glu Val Asn Trp Asp	Glu Leu Met Ser Val	Pro Ala Asp Tyr Trp Lys		
65	70	75	80	
Gln Asp Ala Gln Glu	Ile Arg Lys Phe Leu	Asp Glu Gln Val Gly Glu		
	85	90	95	
Asp Leu Pro Glu Pro	Val Arg Ala Glu Met	Asp Ala Gln Glu Lys Arg		
	100	105	110	
Val Gln Thr Leu				
115				

<210> 223
 <211> 36
 <212> PRT
 <213> Ascoris suum

<400> 223
Ser Leu Ser His Phe Lys Asp Asp Asp Phe Ala Val Val Ser Glu Val
1 5 10 15
Val Thr His Lys Gln Asn His Ile Pro Val Ile Lys Gly Asp Phe Val
20 25 30
Ser Leu Pro Lys
35

<210> 224
 <211> 15
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 224
Ser Leu Asp Phe Val Val Glu Val Val His Pro Lys Phe Ser Lys
1 5 10 15

<210> 225
 <211> 36
 <212> PRT
 <213> Caenorhabditis elegans

<400> 225
Ser Leu Arg Gln Ile Ser Glu Asp Ala Phe Tyr Val Val Asn Glu Val
1 5 10 15
Val Met Lys Arg Leu Gly His Val Pro Ile Leu Lys Val Ile Phe Glu
20 25 30
Ser Ser Glu Lys
35

<210> 226
 <211> 25
 <212> PRT
 <213> Ascoris suum

<400> 226

Gly Cys Met Ala Gly Arg Thr Met Tyr Val Ile Pro Tyr Ser Met Gly
 1 5 10 15
 Pro Val Gly Gly Pro Leu Ser Lys Ile
 20 25

<210> 227
 <211> 9
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 227
 Gly Cys Arg Val Pro Ser Pro Leu Lys
 1 5

<210> 228
 <211> 25
 <212> PRT
 <213> Caenorhabditis elegans

<400> 228
 Gly Cys Ser Gly Arg Arg Val Leu Cys Val Cys Pro Cys Ser His Ser
 1 5 10 15
 Ser Ser Ala Leu Pro Leu Gln Lys Val
 20 25

<210> 229
 <211> 16
 <212> PRT
 <213> Ascoris suum

<400> 229
 Leu Pro Asn Val Asn Trp Asp Glu Leu Met Ser Ile Pro Lys Ser Tyr
 1 5 10 15

<210> 230
 <211> 7
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 230
 Leu Asn Trp Ser Pro Ser Tyr
 1 5

<210> 231
 <211> 16
 <212> PRT
 <213> Caenorhabditis elegans

<400> 231
 Leu Glu Ser Phe Asn Trp Phe Ser Phe Val Ser Cys Pro Asp Ser Tyr
 1 5 10 15

<210> 232
 <211> 14
 <212> PRT
 <213> Ascoris suum

<400> 232
 Ser Val Cys His Thr Pro Glu Gly Val Lys Pro Met Met Gly
 1 5 10

<210> 233
 <211> 6
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 233
 Val His Pro Pro Met Gly
 1 5

<210> 234
 <211> 14
 <212> PRT
 <213> Caenorhabditis elegans

<400> 234
 Thr Val Met His Asp Pro Met Ala Met Arg Pro Phe Met Gly
 1 5 10

<210> 235
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 235
 Ser Gly Phe Phe Asp Tyr Gly Ser Phe Ser Glu Ile Met Gln Pro Trp
 1 5 10 15
 Ala Gln Thr Val Val Val Gly Arg Ala Arg Leu Gly Gly Ile Pro Val
 20 25 30
 Gly Val Val Ala Val Glu Thr Arg Thr Val Glu Leu Ser Val Pro Ala
 35 40 45
 Asp Pro Ala Asn Leu Asp Ser Glu Ala Lys Ile Ile Gln Gln Ala Gly
 50 55 60
 Gln Val Trp Phe Pro Asp Ser Ala Phe Lys Thr Tyr Gln Ala Ile Lys
 65 70 75 80
 Asp Phe Asn Arg Glu Gly Leu Pro Leu Met Val Phe Ala Asn Trp Arg
 85 90 95
 Gly Phe Ser Gly Gly Met Lys Asp Met Tyr Asp Gln Val Leu Lys Phe
 100 105 110
 Gly Ala Tyr Ile Val Asp Gly Leu Arg Glu Cys Ser Gln Pro Val Met
 115 120 125
 Val Tyr Ile Pro Pro Gln Ala Glu Leu Arg Gly Gly Ser Trp Val Val
 130 135 140

Ile Asp Pro Thr Ile Asn Pro Arg His Met Glu Met Tyr Ala Asp Arg
 145 150 155 160
 Glu Ser Arg Gly Ser Val Leu Glu Pro Glu Gly Thr Val Glu Ile Lys
 165 170 175
 Phe Arg Lys Lys Asp Leu Val Lys Thr Met Arg Arg Val Asp Pro Val
 180 185 190
 Tyr Ile Arg Leu Ala
 195

<210> 236
 <211> 109
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 236
 Gly Asp Ser Phe Glu Ile Trp Ala Val Gly Arg Ala Arg Leu Gly Ile
 1 5 10 15
 Pro Gly Val Val Glu Arg Val Pro Ala Asp Pro Ala Ser Gln Ala Gly
 20 25 30
 Gln Val Trp Pro Asp Ser Ala Phe Lys Thr Ala Ile Asp Asn Glu Leu
 35 40 45
 Pro Leu Met Ala Arg Gly Phe Ser Gly Gly Lys Asp Met Tyr Asp Val
 50 55 60
 Leu Lys Phe Gly Ala Ile Val Asp Leu Pro Val Val Tyr Ile Pro Glu
 65 70 75 80
 Leu Arg Gly Gly Trp Val Asp Ile Pro Ala Asp Ser Arg Gly Leu Glu
 85 90 95
 Pro Val Ile Lys Phe Arg Lys Met Arg Asp Pro Tyr Leu
 100 105

<210> 237
 <211> 197
 <212> PRT
 <213> Caenorhabditis elegans

<400> 237
 Thr Gly Ile Cys Asp Thr Met Ser Phe Asp Glu Ile Cys Gly Asp Trp
 1 5 10 15
 Ala Lys Ser Ile Val Ala Gly Arg Ala Arg Leu Cys Gly Ile Pro Ile
 20 25 30
 Gly Val Val Ser Ser Glu Phe Arg Asn Phe Ser Thr Ile Val Pro Ala
 35 40 45
 Asp Pro Ala Ile Asp Gly Ser Gln Val Gln Asn Thr Gln Arg Ala Gly
 50 55 60
 Gln Val Trp Tyr Pro Asp Ser Ala Phe Lys Thr Ala Glu Ala Ile Asn
 65 70 75 80
 Asp Leu Asn Lys Glu Asn Leu Pro Leu Met Ile Ile Ala Ser Leu Arg
 85 90 95
 Gly Phe Ser Gly Gly Gln Lys Asp Met Tyr Asp Met Val Leu Lys Phe
 100 105 110
 Gly Ala Gln Ile Val Asp Ala Leu Ala Val Tyr Asn Arg Pro Val Ile

	115		120		125										
Val	Tyr	Ile	Pro	Glu	Ala	Gly	Glu	Leu	Arg	Gly	Gly	Ala	Trp	Ala	Val
	130					135					140				
Leu	Asp	Ser	Lys	Ile	Arg	Pro	Glu	Phe	Ile	His	Leu	Val	Ala	Asp	Glu
145					150					155					160
Lys	Ser	Arg	Gly	Gly	Ile	Leu	Glu	Pro	Asn	Ala	Val	Val	Gly	Ile	Lys
			165						170					175	
Phe	Arg	Lys	Pro	Met	Met	Met	Glu	Met	Met	Lys	Arg	Ser	Asp	Pro	Thr
			180					185					190		
Tyr	Ser	Lys	Leu	Ser											
	195														

<210> 238

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(124)

<223> Xaa = Any Amino Acid

<400> 238

Val	Gly	Tyr	Pro	Val	Met	Ile	Lys	Ala	Ser	Glu	Gly	Gly	Gly	Gly	Lys
1				5				10						15	
Gly	Ile	Arg	Lys	Val	Asn	Asn	Ala	Asp	Asp	Phe	Pro	Asn	Leu	Phe	Arg
			20				25					30			
Gln	Val	Gln	Ala	Glu	Val	Pro	Gly	Ser	Pro	Ile	Phe	Val	Met	Arg	Leu
	35					40					45				
Ala	Lys	Gln	Ser	Arg	His	Leu	Glu	Val	Gln	Ile	Leu	Ala	Asp	Gln	Tyr
	50				55				60						
Gly	Asn	Ala	Ile	Ser	Leu	Phe	Gly	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg
65				70				75						80	
His	Gln	Lys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			85				90						95		
Val	Phe	Glu	His	Met	Glu	Gln	Cys	Ala	Val	Lys	Leu	Ala	Lys	Met	Val
		100				105						110			
Gly	Tyr	Val	Ser	Ala	Gly	Thr	Val	Glu	Tyr	Leu	Tyr				
	115					120									

<210> 239

<211> 68

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 239

Gly	Pro	Met	Ile	Lys	Ala	Ser	Glu	Gly	Gly	Gly	Gly	Lys	Gly	Ile	Arg
1				5				10				15			
Lys	Asp	Phe	Phe	Val	Glu	Val	Gly	Ser	Pro	Ile	Phe	Met	Arg	His	Glu
			20				25					30			
Val	Gln	Leu	Ala	Asp	Tyr	Asn	Ile	Ser	Arg	Asp	Cys	Ser	Gln	Arg	Arg

35 40 45
 Gln Lys Met Ala Val Leu Ala Lys Val Gly Tyr Ser Ala Gly Thr Val
 50 55 60
 Glu Tyr Leu Tyr
 65

<210> 240
 <211> 124
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 240
 Ile Gly Phe Pro Leu Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys
 1 5 10 15
 Gly Ile Arg Lys Cys Thr Lys Val Glu Asp Phe Lys Ser Met Phe Glu
 20 25 30
 Glu Val Ala Gln Glu Val Gln Gly Ser Pro Ile Phe Leu Met Lys Cys
 35 40 45
 Val Asp Gly Ala Arg His Ile Glu Val Gln Leu Leu Ala Asp Arg Tyr
 50 55 60
 Glu Asn Val Ile Ser Val Tyr Thr Arg Asp Cys Ser Ile Gln Arg Arg
 65 70 75 80
 Cys Gln Lys Ile Ile Glu Glu Ala Pro Ala Ile Ile Ala Ser Ser His
 85 90 95
 Ile Arg Lys Ser Met Gln Glu Asp Ala Val Arg Leu Ala Lys Tyr Val
 100 105 110
 Gly Tyr Glu Ser Ala Gly Thr Val Glu Tyr Leu Tyr
 115 120

<210> 241
 <211> 116
 <212> PRT
 <213> Rat

<400> 241
 Lys Glu Glu Gly Leu Gly Ala Glu Asn Leu Arg Gly Ser Gly Met Ile
 1 5 10 15
 Ala Gly Glu Ser Ser Leu Ala Tyr Asp Glu Ile Ile Thr Ile Ser Leu
 20 25 30
 Val Thr Cys Arg Ala Ile Gly Ile Gly Ala Tyr Leu Val Arg Leu Gly
 35 40 45
 Gln Arg Thr Ile Gln Val Glu Asn Ser His Leu Ile Leu Thr Gly Ala
 50 55 60
 Gly Ala Leu Asn Lys Val Leu Gly Arg Glu Val Tyr Thr Ser Asn Asn
 65 70 75 80
 Gln Leu Gly Gly Ile Gln Ile Met His Asn Asn Gly Val Thr His Cys
 85 90 95
 Thr Val Cys Asp Asp Phe Glu Gly Val Phe Thr Val Leu His Trp Leu
 100 105 110
 Ser Tyr Met Pro
 115

<210> 242
 <211> 65
 <212> PRT
 <213> Caenorhabditis elegans or Rat

<400> 242
 Lys Glu Gly Glu Asn Leu Gly Ser Gly Ile Ala Gly Glu Ala Tyr Glu
 1 5 10 15
 Thr Val Thr Arg Gly Ile Gly Ala Tyr Arg Leu Arg Gln Ser His Leu
 20 25 30
 Ile Leu Thr Gly Ala Leu Asn Leu Gly Val Tyr Thr Ser Asn Asn Gln
 35 40 45
 Leu Gly Gly Met Asn Gly Val Thr His Val Asp Glu Gly Val Trp Ser
 50 55 60
 Pro
 65

<210> 243
 <211> 116
 <212> PRT
 <213> Caenorhabditis elegans

<400> 243
 Lys Asn Glu Lys Ile Gly Val Glu Asn Leu Gln Gly Ser Gly Leu Ile
 1 5 10 15
 Ala Gly Glu Thr Ala Arg Ala Tyr Ala Glu Val Pro Thr Tyr Cys Tyr
 20 25 30
 Val Thr Gly Arg Ser Val Gly Ile Gly Ala Tyr Thr Ala Arg Leu Ala
 35 40 45
 His Arg Ile Val Gln His Lys Gln Ser His Leu Ile Leu Thr Gly Tyr
 50 55 60
 Glu Ala Leu Asn Thr Leu Leu Gly Lys Lys Val Tyr Thr Ser Asn Asn
 65 70 75 80
 Gln Leu Gly Gly Pro Glu Val Met Phe Arg Asn Gly Val Thr His Ala
 85 90 95
 Val Val Asp Asn Asp Leu Glu Gly Ile Ala Lys Val Ile Arg Trp Met
 100 105 110
 Ser Phe Leu Pro
 115

<210> 244
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 244
 His Val Ile Ala Ala Arg Ile Thr Ser Glu Asn Pro Asp Glu Gly Phe
 1 5 10 15
 Lys Pro Ser Ser Gly Thr Val Gln Glu Leu Asn Phe Arg Ser Asn Lys
 20 25 30
 Asn Val Trp Gly Tyr Phe Ser Val Ala Ala Ala Gly Gly Leu His Glu

	35					40				45									
Phe	Ala	Asp	Ser	Gln	Phe	Gly	His	Cys	Phe	Ser	Trp	Gly	Glu	Asn	Arg				
	50					55					60								
Glu	Glu	Ala	Ile	Ser	Asn	Met	Val	Val	Ala	Leu	Lys	Glu	Leu	Ser	Ile				
65					70					75					80				
Arg	Gly	Asp	Phe	Arg	Thr	Thr	Val	Glu	Tyr	Leu	Ile	Lys	Leu	Leu	Glu				
				85					90					95					
Thr	Glu	Ser	Phe	Gln	Leu	Asn	Arg	Ile	Asp	Thr	Gly	Trp	Leu	Asp	Arg				
			100					105					110						
Leu	Ile	Ala	Glu	Lys	Val	Gln													
			115																

<210> 245

<211> 59

<212> PRT

<213> Caenorhabditis elegans or Homo sapiens

<400> 245

His	Ile	Ala	Ala	Arg	Ile	Thr	Glu	Asn	Pro	Asp	Phe	Pro	Ser	Gly	Val				
1				5					10					15					
Glu	Asn	Phe	Ser	Trp	Tyr	Phe	Ser	Val	His	Phe	Ala	Asp	Ser	Gln	Phe				
			20					25					30						
Gly	His	Phe	Gly	Arg	Glu	Ala	Met	Leu	Lys	Ile	Arg	Phe	Thr	Val	Tyr				
		35					40					45							
Leu	Leu	Phe	Asn	Thr	Trp	Leu	Asp	Ile	Ala	Lys									
	50					55													

<210> 246

<211> 119

<212> PRT

<213> Caenorhabditis elegans

<400> 246

His	Ala	Ile	Ala	Ala	Arg	Ile	Thr	Cys	Glu	Asn	Pro	Asp	Asp	Ser	Phe				
1				5					10					15					
Arg	Pro	Ser	Thr	Gly	Lys	Val	Tyr	Glu	Ile	Asn	Phe	Pro	Ser	Ser	Gln				
			20					25					30						
Asp	Ala	Trp	Ala	Tyr	Phe	Ser	Val	Gly	Arg	Gly	Ser	Ser	Val	His	Gln				
		35					40					45							
Phe	Ala	Asp	Ser	Gln	Phe	Gly	His	Ile	Phe	Thr	Arg	Gly	Thr	Ser	Arg				
	50					55					60								
Thr	Glu	Ala	Met	Asn	Thr	Met	Cys	Ser	Thr	Leu	Lys	His	Met	Thr	Ile				
65				70						75				80					
Arg	Ser	Ser	Phe	Pro	Thr	Gln	Val	Asn	Tyr	Leu	Val	Asp	Leu	Met	His				
			85					90					95						
Asp	Ala	Asp	Phe	Ile	Asn	Asn	Ala	Phe	Asn	Thr	Gln	Trp	Leu	Asp	Lys				
			100					105					110						
Arg	Ile	Ala	Met	Lys	Ile	Lys													
			115																

<210> 247

<211> 90
 <212> PRT
 <213> Rat

<400> 247
 Pro Gly Gly Ala Asn Asn Asn Asn Tyr Ala Asn Val Glu Leu Ile Leu
 1 5 10 15
 Asp Ile Ala Lys Arg Ile Pro Val Gln Ala Val Trp Ala Gly Trp Gly
 20 25 30
 His Ala Ser Glu Asn Pro Lys Leu Pro Glu Leu Leu Leu Lys Asn Gly
 35 40 45
 Ile Ala Phe Met Gly Pro Pro Ser Gln Ala Met Trp Ala Leu Gly Asp
 50 55 60
 Lys Ile Ala Ser Ser Ile Val Ala Gln Thr Ala Gly Ile Pro Thr Leu
 65 70 75 80
 Pro Trp Ser Gly Ser Gly Leu Arg Val Asp
 85 90

<210> 248
 <211> 55
 <212> PRT
 <213> Caenorhabditis elegans or Rat

<400> 248
 Pro Gly Asn Asn Asn Ala Asn Val Ile Leu Ala Val Ala Val Trp Ala
 1 5 10 15
 Gly Trp Gly His Ala Ser Glu Asn Pro Leu Pro Leu Ile Ala Phe Gly
 20 25 30
 Pro Pro Ala Met Leu Gly Asp Lys Ile Ala Ser Ile Ala Gln Thr Gly
 35 40 45
 Pro Thr Trp Ser Gly Ser Gly
 50 55

<210> 249
 <211> 90
 <212> PRT
 <213> Caenorhabditis elegans

<400> 249
 Pro Ser Gly Thr Asn Lys Asn Asn Phe Ala Asn Val Asp Glu Ile Leu
 1 5 10 15
 Lys His Ala Ile Lys Tyr Glu Val Asp Ala Val Trp Ala Gly Trp Gly
 20 25 30
 His Ala Ser Glu Asn Pro Asp Leu Pro Arg Arg Leu Asn Asp His Asn
 35 40 45
 Ile Ala Phe Ile Gly Pro Pro Ala Ser Ala Met Phe Ser Leu Gly Asp
 50 55 60
 Lys Ile Ala Ser Thr Ile Ile Ala Gln Thr Val Gly Val Pro Thr Val
 65 70 75 80
 Ala Trp Ser Gly Ser Gly Ile Thr Met Glu
 85 90

<210> 250
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 250
 Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu
 20 25 30
 Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe
 35 40 45
 Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile
 50 55 60
 Lys Asn Arg
 65

<210> 251
 <211> 36
 <212> PRT
 <213> Caenorhabditis elegans

<400> 251
 Ile Asn Gly Phe Val Pro Asn Gly Gly Arg Val Tyr Tyr Leu Arg Ser
 1 5 10 15
 Gln Pro Pro Pro Met Val Tyr Glu Tyr Tyr Thr Asp Val Pro Lys Glu
 20 25 30
 Tyr Phe Trp Arg
 35

<210> 252
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

91
 <400> 252
 Met Ile Leu Asn Phe Ala His Ile Ile Glu Thr Tyr Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Arg Arg Ser Gln Pro Pro Phe Phe
 20 25 30
 Ala Pro Met Val Tyr Glu Tyr Tyr Leu Ala Thr Gln Asp Ile Gln Leu
 35 40 45
 Val Ala Asp Leu Ile Pro Val Ile Glu Lys Glu Tyr Thr Phe Trp Ser
 50 55 60
 Glu Arg Arg
 65

<210> 253
 <211> 92
 <212> PRT
 <213> Caenorhabditis elegans

<400> 253

Met Asp Ser Ile Arg Thr Trp Ser Ile Ile Pro Ala Asp Leu Asn Ala
1 5 10 15
Phe Met Cys Ala Asn Ala Arg Ile Leu Ala Ser Leu Tyr Glu Ile Ala
20 25 30
Gly Asp Phe Lys Lys Val Lys Val Phe Glu Gln Arg Tyr Thr Trp Ala
35 40 45
Lys Arg Glu Met Arg Glu Leu His Trp Asn Glu Thr Asp Gly Ile Trp
50 55 60
Tyr Asp Tyr Asp Ile Glu Leu Lys Thr His Ser Asn Gln Tyr Tyr Val
65 70 75 80
Ser Asn Ala Val Pro Leu Tyr Ala Lys Cys Tyr Asp
85 90

<210> 254

<211> 32

<212> PRT

<213> Caenorhabditis elegans

<400> 254

Ile Thr Ile Pro Asp Leu Asn Ala Phe Cys Asn Ile Tyr Gly Lys Arg
1 5 10 15
Thr Trp Tyr Asp Tyr Thr His Ser Asn Ala Val Pro Leu Cys Tyr Asp
20 25 30

<210> 255

<211> 92

<212> PRT

<213> Caenorhabditis elegans

<400> 255

91
Ile Ser Thr Ile Glu Thr Thr Asn Ile Val Pro Val Asp Leu Asn Ala
1 5 10 15
Phe Leu Cys Tyr Asn Met Asn Ile Met Gln Leu Phe Tyr Lys Leu Thr
20 25 30
Gly Asn Pro Leu Lys His Leu Glu Trp Ser Ser Arg Phe Thr Asn Phe
35 40 45
Arg Glu Ala Phe Thr Lys Val Phe Tyr Val Pro Ala Arg Lys Gly Trp
50 55 60
Tyr Asp Tyr Asn Leu Arg Thr Leu Thr His Asn Thr Asp Phe Phe Ala
65 70 75 80
Ser Asn Ala Val Pro Leu Phe Ser Gln Cys Tyr Asp
85 90

<210> 256

<211> 102

<212> PRT

<213> Caenorhabditis elegans

<400> 256

Val His Asp Tyr Leu Glu Arg Gln Gly Leu Leu Lys Tyr Thr Lys Gly

1		5		10		15									
Leu	Pro	Thr	Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu
			20					25					30		
Asn	Ala	Trp	Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr
		35					40					45			
Thr	Gly	Asp	Ile	Lys	Leu	Met	Lys	Val	Ala	Glu	Lys	Met	Ala	Thr	Ser
	50					55					60				
Trp	Leu	Thr	Gly	Thr	Tyr	Gln	Ser	Phe	Ile	Arg	Thr	His	Ala	Met	Phe
65					70					75					80
Glu	Lys	Tyr	Asn	Val	Thr	Pro	His	Thr	Glu	Glu	Thr	Ser	Gly	Gly	Gly
			85						90					95	
Gly	Gly	Glu	Tyr	Glu	Val										
			100												

<210> 257
 <211> 37
 <212> PRT
 <213> Caenorhabditis elegans

<400> 257
Val Gly Gly Pro Thr Ser Gln Gln Trp Asp Asn Trp Pro Met His Met
1 5 10 15
Ile Glu Gly Arg Leu Ala Ala Trp Leu Gln Phe Met Glu Lys Tyr Asn
20 25 30
Val Gly Gly Glu Val
35

<210> 258
 <211> 102
 <212> PRT
 <213> Caenorhabditis elegans

<400> 258
Val Tyr Asn Glu Met Gln Asn Ser Gly Ala Phe Ser Ile Pro Gly Gly
1 5 10 15
Ile Pro Thr Ser Met Asn Glu Glu Thr Asn Gln Gln Trp Asp Phe Pro
20 25 30
Asn Gly Trp Ser Pro Met Asn His Met Ile Ile Glu Gly Leu Arg Lys
35 40 45
Ser Asn Asn Pro Ile Leu Gln Gln Lys Ala Phe Thr Leu Ala Glu Lys
50 55 60
Trp Leu Glu Thr Asn Met Gln Thr Phe Asn Val Ser Asp Glu Met Trp
65 70 75 80
Glu Lys Tyr Asn Val Lys Glu Pro Leu Gly Lys Leu Ala Thr Gly Gly
85 90 95
Glu Tyr Glu Val Gln Val
100

<210> 259
 <211> 58
 <212> PRT

<213> Caenorhabditis elegans

<400> 259

Tyr	Gln	Tyr	Lys	Ala	Lys	Leu	Lys	Val	Pro	Arg	Pro	Glu	Ser	Tyr	Arg
1				5					10					15	
Glu	Asp	Ser	Glu	Leu	Ala	Glu	His	Leu	Gln	Thr	Glu	Ala	Glu	Lys	Ile
			20					25						30	
Gln	Met	Trp	Ser	Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe
			35				40						45		
Ser	Thr	Arg	Trp	Phe	Ser	Gln	Asn	Gly	Asp						
			50				55								

<210> 260

<211> 29

<212> PRT

<213> Caenorhabditis elegans

<400> 260

Gln	Tyr	Pro	Arg	Pro	Glu	Ser	Arg	Glu	Asp	Ala	Glu	His	Thr	Lys	Gln
1				5					10					15	
Ser	Ala	Ala	Glu	Gly	Trp	Asp	Phe	Ser	Arg	Trp	Phe	Asp			
			20					25							

<210> 261

<211> 58

<212> PRT

<213> Caenorhabditis elegans

<400> 261

91

Phe	Gln	Tyr	Arg	Thr	Glu	Ala	Glu	Thr	Pro	Arg	Pro	Glu	Ser	Phe	Arg
1				5					10					15	
Glu	Asp	Val	Leu	Ser	Ala	Glu	His	Phe	Thr	Thr	Lys	Asp	Arg	Lys	Lys
			20					25					30		
Gln	Phe	Phe	Lys	Asp	Leu	Gly	Ser	Ala	Ala	Glu	Ser	Gly	Trp	Asp	Phe
			35				40						45		
Ser	Ser	Arg	Trp	Phe	Lys	Asn	His	Lys	Asp						
			50				55								

<210> 262

<211> 21

<212> PRT

<213> Caenorhabditis elegans

<400> 262

Gln	Thr	Gly	Phe	Gly	Trp	Thr	Asn	Gly	Val	Ile	Leu	Asp	Leu	Leu	Asp
1				5					10					15	
Lys	Tyr	Gly	Asp	Gln											
			20												

<210> 263

<211> 13

<212> PRT
<213> Caenorhabditis elegans

<400> 263
Gln Gly Phe Gly Trp Thr Asn Gly Leu Asp Leu Tyr Asp
1 5 10

<210> 264
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 264
Gln Ala Gly Phe Gly Trp Thr Asn Gly Ala Ala Leu Asp Leu Ile Phe
1 5 10 15
Thr Tyr Ser Asp Arg
20

<210> 265
<211> 24
<212> PRT
<213> Caenorhabditis elegans

<400> 265
Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu Ser Asn Ile Thr
1 5 10 15
Phe Val Val Phe Ile Leu Tyr Ile
20

<210> 266
<211> 10
<212> PRT
<213> Caenorhabditis elegans

91 <400> 266
Ser Ser Ser Phe Ser Val Phe Leu Tyr Ile
1 5 10

<210> 267
<211> 24
<212> PRT
<213> Caenorhabditis elegans

<400> 267
Thr Ser Ser Ser Ser Ser Thr Phe Gly Tyr Ser Asn Ile Leu Thr Leu
1 5 10 15
Ile Thr Val Phe Val Leu Tyr Ile
20

<210> 268
<211> 7

<212> PRT
<213> Caenorhabditis elegans

<400> 268
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 269
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 269
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 270
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 270
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 271
<211> 18
<212> PRT
<213> Caenorhabditis elegans

<400> 271
Lys Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr
1 5 10 15
Ala Lys

<210> 272
<211> 8
<212> PRT
<213> Caenorhabditis elegans

<400> 272
Lys Tyr Tyr Val Ser Pro Tyr Lys
1 5

<210> 273
<211> 18
<212> PRT
<213> Caenorhabditis elegans

<400> 273

Lys Phe Thr Ala His Pro Tyr Tyr Val Ser Arg Thr Pro Pro Arg Tyr
 1 5 10 15
 His Lys

<210> 274
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 274
 Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu
 20 25 30
 Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe
 35 40 45
 Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile
 50 55 60
 Lys Asn Arg
 65

<210> 275
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans

<400> 275
 Ile Asn Leu Met Val Asp Gly Phe Val Pro Asn Gly Gly Arg Val Tyr
 1 5 10 15
 Tyr Leu Arg Ser Gln Pro Pro Leu Met Val Tyr Glu Tyr Thr Asp Phe
 20 25 30
 Val Glu Leu Pro Thr Leu Lys Glu Phe Trp Arg
 35 40

91 <210> 276
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 276
 Met Ile Arg Asn Leu Ala Ser Met Val Asp Lys Tyr Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Gln Arg Ser Gln Pro Pro Phe Leu
 20 25 30
 Ala Ala Met Val Tyr Glu Leu Tyr Glu Ala Thr Asn Asp Lys Ala Phe
 35 40 45
 Val Ala Glu Leu Leu Pro Thr Leu Leu Lys Glu Leu Asn Phe Trp Asn
 50 55 60
 Glu Lys Arg
 65

<210> 277
 <211> 84
 <212> PRT
 <213> Caenorhabditis elegans

<400> 277
 Ile Ile Pro Ala Asp Leu Asn Ala Phe Met Cys Ala Asn Ala Arg Ile
 1 5 10 15
 Leu Ala Ser Leu Tyr Glu Ile Ala Gly Asp Phe Lys Lys Val Lys Val
 20 25 30
 Phe Glu Gln Arg Tyr Thr Trp Ala Lys Arg Glu Met Arg Glu Leu His
 35 40 45
 Trp Asn Glu Thr Asp Gly Ile Trp Tyr Asp Tyr Asp Ile Glu Leu Lys
 50 55 60
 Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala
 65 70 75 80
 Lys Cys Tyr Asp

<210> 278
 <211> 31
 <212> PRT
 <213> Caenorhabditis elegans

<400> 278
 Pro Asp Leu Asn Cys Asn Ile Leu Tyr Glu Gly Asp Lys Phe Asn Thr
 1 5 10 15
 Asp Gly Trp Tyr Asp Tyr His Tyr Ser Ala Val Pro Leu Cys Tyr
 20 25 30

<210> 279
 <211> 84
 <212> PRT
 <213> Caenorhabditis elegans

91 <400> 279
 Val Leu Pro Val Asp Leu Asn Gly Leu Leu Cys Trp Asn Met Asp Ile
 1 5 10 15
 Met Glu Tyr Leu Tyr Glu Gln Ile Gly Asp Thr Lys Asn Ser Gln Ile
 20 25 30
 Phe Arg Asn Lys Arg Ala Asp Phe Arg Asp Thr Val Gln Asn Val Phe
 35 40 45
 Tyr Asn Arg Thr Asp Gly Thr Trp Tyr Asp Tyr Asn Leu Arg Thr Gln
 50 55 60
 Ser His Asn Pro Arg Phe Tyr Thr Ser Thr Ala Val Pro Leu Phe Thr
 65 70 75 80
 Asn Cys Tyr Asn

<210> 280
 <211> 48

<212> PRT

<213> Caenorhabditis elegans

<400> 280

Tyr	Leu	Glu	Arg	Gln	Gly	Leu	Leu	Lys	Tyr	Thr	Lys	Gly	Leu	Pro	Thr
1				5				10						15	
Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu	Asn	Ala	Trp
		20					25						30		
Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr	Thr	Gly	Asp
		35					40						45		

<210> 281

<211> 20

<212> PRT

<213> Caenorhabditis elegans

<400> 281

Gly	Tyr	Gly	Pro	Thr	Ser	Ser	Gln	Gln	Trp	Asp	Asn	Trp	Pro	His	Met
1				5					10					15	
Ile	Glu	Gly	Arg												
		20													

<210> 282

<211> 48

<212> PRT

<213> Caenorhabditis elegans

<400> 282

Phe	Phe	Gln	Lys	Met	Gly	Val	Phe	Thr	Tyr	Pro	Gly	Gly	Ile	Pro	Thr
1				5					10					15	
Ser	Met	Ser	Gln	Glu	Ser	Asp	Gln	Gln	Trp	Asp	Phe	Pro	Asn	Gly	Trp
		20					25						30		
Ser	Pro	Asn	Asn	His	Met	Ile	Ile	Glu	Gly	Leu	Arg	Lys	Ser	Ala	Asn
		35					40					45			

91 <210> 283

<211> 18

<212> PRT

<213> Caenorhabditis elegans

<400> 283

Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe	Ser	Thr	Arg	Trp
1				5					10					15	
Phe	Ser														

<210> 284

<211> 15

<212> PRT

<213> Caenorhabditis elegans

<400> 284

Ala Ser Ala Ala Glu Gly Trp Asp Phe Ser Thr Arg Trp Phe Ser
1 5 10 15

<210> 285

<211> 18

<212> PRT

<213> *Caenorhabditis elegans*

<400> 285

Asp Leu Ala Ser Ala Ala Glu Ser Gly Trp Asp Phe Ser Thr Arg Trp
1 5 10 15
Phe Ser

<210> 286

<211> 40

<212> PRT

<213> *Caenorhabditis elegans*

<400> 286

Lys Gln Phe Pro Tyr Tyr Gln Tyr Lys Ala Lys Leu Lys Val Pro Arg
1 5 10 15
Pro Glu Ser Tyr Arg Glu Asp Ser Glu Leu Ala Glu His Leu Gln Thr
20 25 30
Glu Ala Glu Lys Ile Gln Met Trp
35 40

<210> 287

<211> 18

<212> PRT

<213> *Caenorhabditis elegans*

<400> 287

91 Lys Phe Tyr Gln Tyr Lys Val Pro Arg Pro Glu Ser Tyr Arg Asp Leu
1 5 10 15
Ala Gln

<210> 288

<211> 40

<212> PRT

<213> *Caenorhabditis elegans*

<400> 288

Lys Ser Phe Lys Val Tyr Gln Tyr Lys Thr Ala Ser Asn Val Pro Arg
1 5 10 15
Pro Glu Ser Tyr Arg Val Asp Thr Gln Asn Ser Ala Lys Leu Ala Asn
20 25 30
Gly Ala Asp Gln Gln Gln Phe Tyr
35 40

<210> 289
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 289
Gln Thr Gly Phe Gly Trp Thr Asn Gly Val Ile Leu Asp Leu Leu Asp
1 5 10 15
Lys Tyr Gly Asp Gln
20

<210> 290
<211> 14
<212> PRT
<213> Caenorhabditis elegans

<400> 290
Gln Gly Phe Gly Trp Asn Gly Ile Leu Asp Leu Leu Tyr Asp
1 5 10

<210> 291
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 291
Gln Asp Gly Phe Gly Trp Ser Asn Gly Ala Ile Leu Asp Leu Leu Leu
1 5 10 15
Thr Tyr Asn Asp Arg
20

<210> 292
<211> 27
<212> PRT
<213> Caenorhabditis elegans

61
<400> 292
Tyr Gly Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe
1 5 10 15
Ser Leu Ser Asn Ile Thr Phe Val Val Phe Ile
20 25

<210> 293
<211> 11
<212> PRT
<213> Caenorhabditis elegans

<400> 293
Tyr Phe Ala Ser Ser Ser Ala Ser Phe Ser Phe
1 5 10

<210> 294
<211> 26
<212> PRT
<213> Caenorhabditis elegans

<400> 294
Tyr Asn Pro Phe Ala Ser Ser Ser Asp Ala Ser Ser Cys Pro Phe Ser
1 5 10 15
Thr Asn Ser Val Ile Phe Ser Ile Leu Val
20 25

<210> 295
<211> 9
<212> PRT
<213> Caenorhabditis elegans

<400> 295
Gly Gly Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 296
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 296
Gly Gly Gly Glu Tyr Val Gln
1 5

<210> 297
<211> 9
<212> PRT
<213> Caenorhabditis elegans

91 <400> 297
Gly Ser Gly Gly Glu Tyr Asp Val Gln
1 5

<210> 298
<211> 14
<212> PRT
<213> Caenorhabditis elegans

<400> 298
Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala Lys
1 5 10

<210> 299
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 299

Asn Tyr Tyr Val Leu Tyr Lys

1 5

<210> 300

<211> 14

<212> PRT

<213> Caenorhabditis elegans

<400> 300

Asn His Tyr Tyr Ile Ile Gln Met Val Ser Leu Tyr Thr Lys

1 5 10

<210> 301

<211> 30

<212> PRT

<213> Caenorhabditis elegans

<400> 301

Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu

1 5 10 15

Ser Asn Ile Thr Phe Val Val Phe Ile Leu Tyr Ile Phe Ser

20 25 30

<210> 302

<211> 11

<212> PRT

<213> Caenorhabditis elegans

<400> 302

Asp Gln Phe Ser Ser Lys Phe Ser Phe Phe Ser

1 5 10

<210> 303

<211> 30

<212> PRT

<213> Caenorhabditis elegans

<400> 303

Asp Gln Phe Val Ile Ser Phe Ile Cys Ser Lys Phe Ser Ser Lys Asn

1 5 10 15

Lys Lys Leu Tyr Phe Cys Pro Ser His Phe Ser Leu Phe Ser

20 25 30

<210> 304

<211> 9

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(9)

<223> Xaa = Any Amino Acid

<400> 304

Gly Trp Asp Xaa Xaa Ile Ala Pro Lys
1 5

<210> 305

<211> 62

<212> PRT

<213> Mus musculus

<400> 305

Leu Cys Lys Glu Gly Ile Ser Asp Gly Ala Thr Met Lys Thr Phe Cys
1 5 10 15
Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp Asn Asp Tyr
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Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met Tyr Glu Met
35 40 45
Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu Arg
50 55 60

<210> 306

<211> 9

<212> PRT

<213> Caenorhabditis elegans

<400> 306

Gln Ala Leu Thr Gln Met Asn Pro Lys
1 5

<210> 307

<211> 11

<212> PRT

<213> Caenorhabditis elegans

61
<400> 307

Gln Ala Leu Thr Gln Cys Val Asp Ser Met Arg
1 5 10

<210> 308

<211> 248

<212> PRT

<213> Homo sapiens

<400> 308

Ile Phe Arg Thr Ala Val Ser Ser Asn Arg Cys Arg Thr Glu Tyr Gln
1 5 10 15
Asn Ile Asp Leu Asp Cys Ala Tyr Ile Thr Asp Arg Ile Ile Ala Ile
20 25 30
Gly Tyr Pro Ala Thr Gly Ile Glu Ala Asn Phe Arg Asn Ser Lys Val

130	135	140
Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr Arg Asp Lys		
145	150	155
Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr Tyr Tyr Ser		160
	165	170
Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala Leu Leu Phe		175
	180	185
His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly Gly Thr Cys		190
	195	200
Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile Tyr Ser Ser		205
	210	215
Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Asn Tyr Phe Glu Phe		220
225	230	235
Pro Gln Pro Leu Pro Val Cys Gly Asp		240
	245	

<210> 310

<211> 962

<212> PRT

<213> Caenorhabditis elegans

<400> 310

Met Val Thr Pro Pro Pro Asp Val Pro Ser Thr Ser Thr Arg Ser Met		
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Ala Arg Asp Leu Gln Glu Asn Pro Asn Arg Gln Pro Gly Glu Pro Arg		15
	20	25
Val Ser Glu Pro Tyr His Asn Ser Ile Val Glu Arg Ile Arg His Ile		30
	35	40
Phe Arg Thr Ala Val Ser Ser Asn Arg Cys Arg Thr Glu Tyr Gln Asn		45
	50	55
Ile Asp Leu Asp Cys Ala Tyr Ile Thr Asp Arg Ile Ile Ala Ile Gly		60
65	70	75
Tyr Pro Ala Thr Gly Ile Glu Ala Asn Phe Arg Asn Ser Lys Val Gln		80
	85	90
Thr Gln Gln Phe Leu Thr Arg Arg His Gly Lys Gly Asn Val Lys Val		95
	100	105
Phe Asn Leu Arg Gly Gly Tyr Tyr Tyr Asp Ala Asp Asn Phe Asp Gly		110
	115	120
Asn Val Ile Cys Phe Asp Met Thr Asp His His Pro Pro Ser Leu Glu		125
	130	135
Leu Met Ala Pro Phe Cys Arg Glu Ala Lys Glu Trp Leu Glu Ala Asp		140
145	150	155
Asp Lys His Val Ile Ala Val His Cys Lys Ala Gly Lys Gly Arg Thr		160
	165	170
Gly Val Met Ile Cys Ala Leu Leu Ile Tyr Ile Asn Phe Tyr Pro Ser		175
	180	185
Pro Arg Gln Ile Leu Asp Tyr Tyr Ser Ile Ile Arg Thr Lys Asn Asn		190
	195	200
Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Ile Tyr Tyr Tyr His		205
	210	215
Lys Leu Arg Glu Arg Glu Leu Asn Tyr Leu Pro Leu Arg Met Gln Leu		220

225 230 235 240
 Ile Gly Val Tyr Val Glu Arg Pro Pro Lys Thr Trp Gly Gly Gly Ser
 245 250 255
 Lys Ile Lys Val Glu Val Gly Asn Gly Ser Thr Ile Leu Phe Lys Pro
 260 265 270
 Asp Pro Leu Ile Ile Ser Lys Ser Asn His Gln Arg Glu Arg Ala Thr
 275 280 285
 Trp Leu Asn Asn Cys Asp Thr Pro Asn Glu Phe Asp Thr Gly Glu Gln
 290 295 300
 Lys Tyr His Gly Phe Val Ser Lys Arg Ala Tyr Cys Phe Met Val Pro
 305 310 315 320
 Glu Asp Ala Pro Val Phe Val Glu Gly Asp Val Arg Ile Asp Ile Arg
 325 330 335
 Glu Ile Gly Phe Leu Lys Lys Phe Ser Asp Gly Lys Ile Gly His Val
 340 345 350
 Trp Phe Asn Thr Met Phe Ala Cys Asp Gly Gly Leu Asn Gly Gly His
 355 360 365
 Phe Glu Tyr Val Asp Lys Thr Gln Pro Tyr Ile Gly Asp Asp Thr Ser
 370 375 380
 Ile Gly Arg Lys Asn Gly Met Arg Arg Asn Glu Thr Pro Met Arg Lys
 385 390 395 400
 Ile Asp Pro Glu Thr Gly Asn Glu Phe Glu Ser Pro Trp Gln Ile Val
 405 410 415
 Asn Pro Pro Gly Leu Glu Lys His Ile Thr Glu Glu Gln Ala Met Glu
 420 425 430
 Asn Tyr Thr Asn Tyr Gly Met Ile Pro Pro Arg Tyr Thr Ile Ser Lys
 435 440 445
 Ile Leu His Glu Lys His Glu Lys Gly Ile Val Lys Asp Asp Tyr Asn
 450 455 460
 Asp Arg Lys Leu Pro Met Gly Asp Lys Ser Tyr Thr Glu Ser Gly Lys
 465 470 475 480
 Ser Gly Asp Ile Arg Gly Val Gly Gly Pro Phe Glu Ile Pro Tyr Lys
 485 490 495
 Ala Glu Glu His Val Leu Thr Phe Pro Val Tyr Glu Met Asp Arg Ala
 500 505 510
 Leu Lys Ser Lys Asp Leu Asn Asn Gly Met Lys Leu His Val Val Leu
 515 520 525
 Arg Cys Val Asp Thr Arg Asp Ser Lys Met Met Glu Lys Ser Glu Val
 530 535 540
 Phe Gly Asn Leu Ala Phe His Asn Glu Ser Thr Arg Arg Leu Gln Ala
 545 550 555 560
 Leu Thr Gln Met Asn Pro Lys Trp Arg Pro Glu Pro Cys Ala Phe Gly
 565 570 575
 Ser Lys Gly Ala Glu Met His Tyr Pro Pro Ser Val Arg Tyr Ser Ser
 580 585 590
 Asn Asp Gly Lys Tyr Asn Gly Ala Cys Ser Glu Asn Leu Val Ser Asp
 595 600 605
 Phe Phe Glu His Arg Asn Ile Ala Val Leu Asn Arg Tyr Cys Arg Tyr
 610 615 620
 Phe Tyr Lys Gln Arg Ser Thr Ser Arg Ser Arg Tyr Pro Arg Lys Phe
 625 630 635 640

Arg Tyr Cys Pro Leu Ile Lys Lys His Phe Tyr Ile Pro Ala Asp Thr
 645 650 655
 Asp Asp Val Asp Glu Asn Gly Gln Pro Phe Phe His Ser Pro Glu His
 660 665 670
 Tyr Ile Lys Glu Gln Glu Lys Ile Asp Ala Glu Lys Ala Ala Lys Gly
 675 680 685
 Ile Glu Asn Thr Gly Pro Ser Thr Ser Gly Ser Ser Ala Pro Gly Thr
 690 695 700
 Ile Lys Lys Thr Glu Ala Ser Gln Ser Asp Lys Val Lys Pro Ala Thr
 705 710 715 720
 Glu Asp Glu Leu Pro Pro Ala Arg Leu Pro Asp Asn Val Arg Arg Phe
 725 730 735
 Pro Val Val Gly Val Asp Phe Glu Asn Pro Glu Glu Glu Ser Cys Glu
 740 745 750
 His Lys Thr Val Glu Ser Ile Ala Gly Phe Glu Pro Leu Glu His Leu
 755 760 765
 Phe His Glu Ser Tyr His Pro Asn Thr Ala Gly Asn Met Leu Arg Gln
 770 775 780
 Asp Tyr His Thr Asp Ser Glu Val Lys Ile Ala Glu Gln Glu Ala Lys
 785 790 795 800
 Ala Phe Val Asp Gln Leu Leu Asn Gly Gln Gly Val Leu Gln Glu Phe
 805 810 815
 Met Lys Gln Phe Lys Val Pro Ser Asp Asn Ser Phe Ala Asp Tyr Val
 820 825 830
 Thr Gly Gln Ala Glu Val Phe Lys Ala Gln Ile Ala Leu Leu Glu Gln
 835 840 845
 Ser Glu Asp Phe Gln Arg Val Gln Ala Asn Ala Glu Glu Val Asp Leu
 850 855 860
 Glu His Thr Leu Gly Glu Ala Phe Glu Arg Phe Gly His Val Val Glu
 865 870 875 880
 Glu Ser Asn Gly Ser Ser Lys Asn Pro Lys Ala Leu Lys Thr Arg Glu
 885 890 895
 Gln Met Val Lys Glu Thr Gly Lys Asp Thr Gln Lys Thr Arg Asn His
 900 905 910
 Val Leu Leu His Leu Glu Ala Asn His Arg Val Gln Ile Glu Arg Arg
 915 920 925
 Glu Thr Cys Pro Glu Leu His Pro Glu Asp Lys Ile Pro Arg Ile Ala
 930 935 940
 His Phe Ser Glu Asn Ser Phe Ser Asp Ser Asn Phe Asp Gln Ala Ile
 945 950 955 960
 Tyr Leu

<210> 311
 <211> 3304
 <212> DNA
 <213> Caenorhabditis elegans

<400> 311
 ttccaggtac atctactaac ccccaatggg tactcctcct ccagatgtgc caagcacatc 60
 gaccaggtcg atggctcgtg accttcaaga gaatccaaac cgacaacctg gtgaaccacg 120

tgtgtctgaa	ccgtatcaca	attcaatcgt	cgagcggatt	cgccatattt	ttcggacggc	180
tgtatcttcc	aatcgttggt	gcaccgagta	ccaaaatata	gacctagatt	gtgcatatat	240
cacagaccga	atcatagcta	tcggttatcc	agcaacagga	atcgaagcga	atttccgtaa	300
ctcaaaagtt	caaactcaac	aatttctgac	caggcggcac	ggaaagggca	acgtgaaggt	360
gtttaacctg	cgcggtggat	actactacga	tgcggataac	ttcgatggaa	atgttatattg	420
cttcgatatg	actgatcatc	atccgccgag	tctcgaatta	atggctccgt	tttgcagaga	480
ggctaaggaa	tggcttgaag	cagacgataa	acatgtaata	gctgtacact	gtaaagctgg	540
aaaaggccgt	accggagtga	tgatatgtgc	tcttctcatc	tacatcaact	tctatccgag	600
cccacgacaa	attctcgact	actactcaat	aattcgtaca	aaaaacaaca	aaggtgtcac	660
aattccatca	caacgacgct	acatttacta	ctaccataag	cttcgtgaac	gtgagctcaa	720
ctattttacca	ttgagaatgc	agttgattgg	tgtctacgtg	gaacggcctc	caaagacatg	780
gggtgggtgg	tcaaagataa	aagtggaggt	tggaaatggc	tcgacaattt	tatttaagcc	840
ggatcctctc	ataatctcca	aatcaaatca	tcagcgagag	cgtgcgacgt	ggctgaacaa	900
ctgtgatacg	cctaacgaat	tcgacaccgg	agagcaaaaa	tatcatggat	ttgtttccaa	960
gagagcatat	tgtttttatg	tgccagaaga	tgctccagta	tttgtcgaag	gagatgttcg	1020
tatagacatt	cgcgaaatcg	gatttctcaa	aaagttttcg	gacgggaaga	ttggtcatgt	1080
ttggttcaat	acaatgttcg	catgtgatgg	aggactcaac	ggtggacatt	tcgagtacgt	1140
agacaaaact	cagccgtaca	tcggagacga	tacatcaatc	ggacggaaaa	atggaatgcg	1200
aagaaatgaa	acgccgatgc	gaaaaattga	tccagaaact	ggaaatgaat	ttgagtctcc	1260
gtggcaaata	gtgaatcctc	ctggactgga	aaaacatatt	acggaggaac	aagcaatgga	1320
aaattatacc	aattatggca	tgattcctcc	tcgatacacg	atcagcaaga	ttcttcacga	1380
aaagcatgaa	aaaggtatcg	tcaaggatga	ctataatgat	cgtaagctgc	caatgggaga	1440
caaatcatat	acggaatcag	gaaaaagtgg	agatattcga	ggagtccgtg	gtccatttga	1500
gataccatat	aaagctgagg	aacatgttct	cacatttcca	gtttatgaaa	tggatcgagc	1560
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tactcgtgat	tcaaaaatga	tggaaaagag	cgaagtgttc	ggcaatctgg	cattccataa	1680
tgaatcgaca	cggaggcttc	aagcgttgac	tcaaatgaat	ccaaaatggc	gacctgaacc	1740
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caatgatgga	aagtataatg	gagcctgcag	tgagaacctt	gttagcgatt	ttttcgagca	1860
cagaaatatt	gccgttctta	atcgatattg	ccgatatttc	tacaagcaac	gcagtacatc	1920
tcgaagccgt	tatccaagaa	aattcagata	ctgtcctctg	atcaagaaac	atttctacat	1980
tccagctgat	accgatgatg	ttgatgaaaa	tgggcaaccg	ttcttccact	caccagagca	2040
ttacattaaa	gaacaggaaa	aaatagacgc	agagaaagca	gctaaaggaa	ttgaaaatac	2100
tggacccagt	acttcaggat	caagtgtctc	cggaaactatc	aagaaaacgg	aagcttcaca	2160
atccgacaag	gtgaagccgg	caactgaaga	cgaacttctc	cctgcgaggc	taccggataa	2220
tgtgcgaaga	tttccagtcg	tcggcggtga	tttcgaaaat	ccggaagaag	aatcgtgtga	2280
acacaaaacc	gtagagtcaa	tagctggttt	tgaaccactc	gaacatctat	tccatgaatc	2340
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gaaaatagct	gaacaagagg	caaaagcctt	cgttgaccag	ttgcttaatg	gacaaggtgt	2460
attacaagag	tttatgaagc	aattcaaatg	accatcggac	aattcctttg	ctgattatgt	2520
aaccggacag	gccgaagtgt	ttaaagcaca	gattgcgtta	ctggagcagt	cggaggattt	2580
tcaacgagtt	caagcgaatg	cagaggaagt	cgatcttgaa	cacactcttg	gtgaagcgtt	2640
tgagcgattc	gggcacgttg	tagaagaatc	gaatggttct	tctaaaaatc	caaaagccct	2700
gaaaactcga	gaacaaatgg	tgaaagaaac	tggcaaagac	actcagaaga	cccgcaatca	2760
tgtgcttcta	catttggaag	ctaatacatc	tgtgcaaata	gagcgtcgtg	aaacgtgccc	2820
ggagctacat	ccagaggata	aaatcccaag	aattgctcat	ttttccgaaa	acagcttctc	2880
ggattcgaat	tttgatcaag	ctattttatt	gtaaacctaa	aacaaaaactt	ttagaagatt	2940
ttcttcttac	tgaccctcca	attttcagat	aatttcaatg	ttttaagttt	tctcttcaaa	3000
gtatcattca	ctttctgtat	agtgttttgt	tttttaacaa	actattgttc	gattattttg	3060
tatattcata	ttatagctct	caacttcccc	attttccacg	tatatatgta	tattttgccg	3120
ggtgaaaaat	agcaattccc	tatgaatgta	tccccctcca	tctgttttct	tactcagaaa	3180

ttgtaattca cattgcgggt catcactaat cctatgggct ttaacacaat tctcccataa	3240
attaattgta cttaccaatt ttttggttaa ttatttagat ttgtaacatt gaaattggtg	3300
ataa	3304

<210> 312
 <211> 1642
 <212> DNA
 <213> Caenorhabditis elegans

<400> 312

tttaattacc caagtttgag gtagcattgc tctcttcaat catatggatt cgttgtttca	60
gatggcatcc gcaatgaagt ttcaatacta ctggaagaaa gctgctggaa agacaatgtc	120
taatagtgtc tccatgtcca gtgacaatcg catggaggat tttaaacgtc gttttcgtcg	180
aagtggatcg ttaggaattc catttgtecc agaagaagat gttaaacaac tcttcacacc	240
aactcgtact gttcgtcgag aagcatctat tcgcgaaggg gatgaggaag aaggagtaca	300
aattctcaca ataattgtca agtcaagtcg tgtttcggag gatattctca aaatgattgc	360
aaacctccct gatcacactc gtatcaaaca tttggagact cgtgacagtc aagatggaag	420
ttccaaaact atggatgttc ttctagagat tgagctcttt cattatggaa aacaagaagc	480
aatggatctt atgagactta atgggcttga tgttcatgag gtgtcatcga ctattcgtcc	540
aactgcaata aaagagcaat atacagagcc tggatctgat gatgagacaa ccggttctga	600
atggtttcca aaaagtattt atgatttgga tatttggtgca aaaagagtga ttatgtatgg	660
agcagggctg gacgtgatc atcctgggtt caaagatacc gagtatcgtc aacgtcgaat	720
gatgtttgct gaactggcgc tcaattacaa acacgggtgag ccaattccgc gaaccgaata	780
tacatcatcc gaacggaaaa cttggggaat tatatataga aaattgagag aattgcacaa	840
aaagcacgca tgcaagcagt ttcttgataa ctttgagcta ctggagagac attgtggata	900
ctcggaaaaat aatattccgc aactagaaga tatctgcaag tttttgaaag caaaaactgg	960
attcctgtgt cgcccagtcg ccggatactt atcagctcgt gatttcttgg caggtcttgc	1020
atctcgtgtc ttcttctgca ctcaatacgt tcgccatcat gccgatccat tttaactec	1080
agaaccagac accgttcacg agctcatggg tcacatggct ctattcgtcg atccagattt	1140
tgctcagttt tctcaagaga ttggattagc ttctcttggg gcatcagagg aagatttgaa	1200
gaagcttgca acactctact tcttttccat tgaatttggg ctctcgtctg atgacgtgc	1260
cgattctcca gtaaaagaaa atggatcaaa tcatgaaaga tttaaagtat acggagcagg	1320
acttctgagc agtgctggcg agttgcaaca tgccgttgag ggtagtgcaa ccattattcg	1380
ttttgatccg gatcgtgttg ttgagcaaga atgtctcatt actactttcc agtcagcgta	1440
tttctatact agaaattttg aagaggccca gcagaaactc agaattgtca ccaacaacat	1500
gaaacgtccc ttcattgttc gttacaaccc atacacagaa agcgtcgaag ttctcaacaa	1560
ctcccgttcc attatgttgg cagtgaactc tctccgctca gacatcaacc tgctcgccgg	1620
agctctccac tacatcctgt ag	1642

<210> 313
 <211> 532
 <212> PRT
 <213> Caenorhabditis elegans

<400> 313

Met Asp Ser Leu Phe Gln Met Ala Ser Ala Met Lys Phe Gln Tyr Tyr	
1 5 10 15	
Ser Lys Lys Ala Ala Gly Lys Thr Met Ser Asn Ser Val Ser Met Ser	
20 25 30	
Ser Asp Asn Arg Met Glu Asp Phe Lys Arg Arg Phe Arg Arg Ser Gly	
35 40 45	

Ser Leu Gly Ile Pro Phe Val Pro Glu Glu Asp Val Lys Gln Leu Phe
 50 55 60
 Thr Pro Thr Arg Thr Val Arg Arg Glu Ala Ser Ile Arg Glu Gly Asp
 65 70 75 80
 Glu Glu Glu Gly Val Gln Ile Leu Thr Ile Ile Val Lys Ser Ser Arg
 85 90 95
 Val Ser Glu Asp Ile Ser Lys Met Ile Ala Asn Leu Pro Asp His Thr
 100 105 110
 Arg Ile Lys His Leu Glu Thr Arg Asp Ser Gln Asp Gly Ser Ser Lys
 115 120 125
 Thr Met Asp Val Leu Leu Glu Ile Glu Leu Phe His Tyr Gly Lys Gln
 130 135 140
 Glu Ala Met Asp Leu Met Arg Leu Asn Gly Leu Asp Val His Glu Val
 145 150 155 160
 Ser Ser Thr Ile Arg Pro Thr Ala Ile Lys Glu Gln Tyr Thr Glu Pro
 165 170 175
 Gly Ser Asp Asp Ala Thr Thr Gly Ser Glu Trp Phe Pro Lys Ser Ile
 180 185 190
 Tyr Asp Leu Asp Ile Cys Ala Lys Arg Val Ile Met Tyr Gly Ala Gly
 195 200 205
 Leu Asp Ala Asp His Pro Gly Phe Lys Asp Thr Glu Tyr Arg Gln Arg
 210 215 220
 Arg Met Met Phe Ala Glu Leu Ala Leu Asn Tyr Lys His Gly Glu Pro
 225 230 235 240
 Ile Pro Arg Thr Glu Tyr Thr Ser Ser Glu Arg Lys Thr Trp Gly Ile
 245 250 255
 Ile Tyr Arg Lys Leu Arg Glu Leu His Lys Lys His Ala Cys Lys Gln
 260 265 270
 Phe Leu Asp Asn Phe Glu Leu Leu Glu Arg His Cys Gly Tyr Ser Glu
 275 280 285
 Asn Asn Ile Pro Gln Leu Glu Asp Ile Cys Lys Phe Leu Lys Ala Lys
 290 295 300
 Thr Gly Phe Arg Val Arg Pro Val Ala Gly Tyr Leu Ser Ala Arg Asp
 305 310 315 320
 Phe Leu Ala Gly Leu Ala Tyr Arg Val Phe Phe Cys Thr Gln Tyr Val
 325 330 335
 Arg His His Ala Asp Pro Phe Tyr Thr Pro Glu Pro Asp Thr Val His
 340 345 350
 Glu Leu Met Gly His Met Ala Leu Phe Ala Asp Pro Asp Phe Ala Gln
 355 360 365
 Phe Ser Gln Glu Ile Gly Leu Ala Ser Leu Gly Ala Ser Glu Glu Asp
 370 375 380
 Leu Lys Lys Leu Ala Thr Leu Tyr Phe Phe Ser Ile Glu Phe Gly Leu
 385 390 395 400
 Ser Ser Asp Asp Ala Ala Asp Ser Pro Val Lys Glu Asn Gly Ser Asn
 405 410 415
 His Glu Arg Phe Lys Val Tyr Gly Ala Gly Leu Leu Ser Ser Ala Gly
 420 425 430
 Glu Leu Gln His Ala Val Glu Gly Ser Ala Thr Ile Ile Arg Phe Asp
 435 440 445
 Pro Asp Arg Val Val Glu Gln Glu Cys Leu Ile Thr Thr Phe Gln Ser

450 455 460
 Ala Tyr Phe Tyr Thr Arg Asn Phe Glu Glu Ala Gln Gln Lys Leu Arg
 465 470 475 480
 Met Phe Thr Asn Asn Met Lys Arg Pro Phe Ile Val Arg Tyr Asn Pro
 485 490 495
 Tyr Thr Glu Ser Val Glu Val Leu Asn Asn Ser Arg Ser Ile Met Leu
 500 505 510
 Ala Val Asn Ser Leu Arg Ser Asp Ile Asn Leu Leu Ala Gly Ala Leu
 515 520 525
 His Tyr Ile Leu
 530

<210> 314
 <211> 817
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 314
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 agtgtcaaaa actggattcc gtgttcgccc agtcgccgga tacttatcag ctctgtgattt 180
 cttggcaggt cttgcatatc gtgtcttctt ctgcactcaa tacgttcgcc atcatgccga 240
 tccattttac actccagaac cagacaccgt tcacgagctc atgggtcaca tggctctatt 300
 cgctgatcca gatttttgctc agttttctca agagattgga ttagcttctc ttggagcatc 360
 agaggaagat ttgaagaagc ttgcaacact ctacttcttt tccattgaat ttggtctctc 420
 gtctgatgac gctgccgatt ctccagtaaa agaaaatgga tcaaatacatg aaagatttaa 480
 agtatacggg gcaggacttc tgagcagtg caggcaggtg caacatgccg ttgagggtag 540
 tgcaaccatt attcgttttg atccggatcg tgttggtgag caagaatgtc tcattactac 600
 tttccagtca gcgtatttct atactagaaa ttttgaagag gccagcaga aactcagaat 660
 gttcaccaac aacatgaaac gtcccttcat tgttcggtac aaccataca cagaaagcgt 720
 cgaagtcttc aacaactccc gttccattat gttggcagtg aactctctcc gtcagacat 780
 caacctgctc gccggagctc tccactacat cctgtag 817

<210> 315
 <211> 45
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 315
 Met Asp Ser Leu Phe Gln Met Ala Ser Ala Met Lys Phe Gln Tyr Tyr
 1 5 10 15
 Ser Lys Lys Ala Ala Gly Lys Thr Met Ser Asn Ser Val Lys Asn Trp
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 Ile Pro Cys Ser Pro Ser Arg Arg Ile Leu Ile Ser Ser
 35 40 45

<210> 316
 <211> 466
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 316
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 ggggtctggac tgcgacgaga ctcaagcgag tcccgtgct gccgatatcc cctcacagtg 120
 gactttgagg ctttcggctg ggactggatc atcgcaccta agcgctacaa ggccaactac 180
 tgctccggcc agtgggagta catgttcatg caaaaatatc cgcataccca tttggtgcag 240
 caggccaatc caagagggtta tgctgggccc tgttgtagcc ccaccaagat gtccccaatc 300
 aacatgctct acttcaatga caagcagcag attatctacg gcaagatccc tggcatggcg 360
 gtggatcgct gtggctgctc ttaagggtggg ggatagagga tgccctcccc acagaccgta 420
 cccaagacc catagccctg cccaatccac cgctgatcc aaacat 466

<210> 317
 <211> 128
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 317
 Ile Arg His Glu His Gly Ala Ser Ser Pro Arg Glu His Lys Thr Phe
 1 5 10 15
 Pro Ala Glu Pro Gly Ser Gly Leu Arg Arg Asp Ser Ser Glu Ser Arg
 20 25 30
 Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
 35 40 45
 Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
 50 55 60
 Trp Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
 65 70 75 80
 Gln Ala Asn Pro Arg Gly Tyr Ala Gly Pro Cys Cys Thr Pro Thr Lys
 85 90 95
 Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
 100 105 110
 Tyr Gly Lys Ile Pro Leu Ala Met Val Val Asp Arg Cys Gly Cys Ser
 115 120 125

<210> 318
 <211> 9
 <212> DNA
 <213> *Homo sapiens*

<400> 318
 caaaactaa 9

<210> 319
 <211> 20
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 319
 ccactatggc cgagatttcc 20

<210> 320
 <211> 44

<212> DNA
<213> Caenorhabditis elegans

<400> 320
ccagtgaaaa gttcttctcc tttcttctc ttctcgaatt cgga

44

<210> 321
<211> 21
<212> DNA
<213> Caenorhabditis elegans

<400> 321
cttctctcttc tcgaattcgg c

21

<210> 322
<211> 8
<212> PRT
<213> Caenorhabditis elegans

<400> 322
Gly Arg Lys Gly Phe Pro His Val
1 5

<210> 323
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<220>
<221> VARIANT
<222> (1)...(7)
<223> Xaa = Any Amino Acid

91
<400> 323
Arg Xaa Xaa Ile Xaa Xaa Gly
1 5

<210> 324
<211> 7
<212> PRT
<213> Caenorhabditis elegans or Homo sapiens

<400> 324
Cys Gly Cys Cys Cys Cys Cys
1 5

<210> 325
<211> 79
<212> PRT
<213> Homo sapiens or Caenorhabditis elegans

<400> 325

Val Leu Asp Asp Tyr Gly Arg Val Asp Trp Trp Gly Gly Val Val Met
1 5 10 15
Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asp His Lys Leu Phe
20 25 30
Glu Leu Ile Arg Phe Pro Leu Glu Ala Leu Leu Gly Leu Leu Lys Asp
35 40 45
Pro Thr Gln Arg Leu Gly Gly Gly Glu Asp Ala Glu Ile Phe Phe Trp
50 55 60
Tyr Lys Pro Pro Lys Pro Val Ser Glu Thr Asp Thr Tyr Phe Asp
65 70 75

<210> 326

<211> 48

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 326

Thr Met Phe Leu Lys Leu Gly Lys Gly Thr Phe Gly Lys Val Ile Leu
1 5 10 15
Lys Glu Lys Thr Tyr Ala Lys Ile Leu Lys Lys Val Ile Ala Glu Val
20 25 30
Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln His Pro Phe Leu Thr
35 40 45

<210> 327

<211> 27

<212> DNA

<213> Caenorhabditis elegans

<400> 327

caagcgttga ctcaaatgaa tccaaaa

27

<210> 328

<211> 55

<212> DNA

<213> Caenorhabditis elegans

<400> 328

caagcgttga ctcaatgcgt tgactcaatg cggttgactcg ttgacgaatc caaaa

55